

Attachment EE

to

Stephen West Complaint

Dr. David Lubarsky 2010 Affidavit

**IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF TENNESSEE
NASHVILLE DIVISION**

EDWARD JEROME HARBISON,

Plaintiff,

v.

GAYLE RAY, et al,

Defendants.

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**No. 3:06-cv-01206
Judge Trauger**

AFFIDAVIT OF DAVID A. LUBARSKY, M.D., M.B.A.

Comes now the affiant, David A. Lubarsky, M.D., M.B.A., and declares under the penalty of perjury as follows:

1. My name is David A. Lubarsky. I live in Miami, Florida.
2. I graduated from Washington University with a B.S. in 1980 and an M.D. in 1984. I also hold an M.B.A. from Duke University (1999).
3. I am licensed to practice medicine in New York (1985), North Carolina (1988) and Florida (2002). I moved from North Carolina to Florida, and while applying for a full license, in 2001 and early 2002, held a Florida Board of Medicine Medical Faculty Certificate.
4. I am board certified by the National Board of Medical Examiners, the American Board of Anesthesiology (placing in the 99th percentile on Part I of its examination), and have completed the American Board of Anesthesiology Maintenance of Certification Exam (2004), and am

certified by the American Academy of Pain Management.

5. I serve as the Emanuel M. Papper Professor and Chairman, Department of Anesthesiology, University of Miami School of Medicine, with a secondary academic appointment as Professor, Department of Management, University of Miami School of Business.
6. I have published, as author and co-author, 127 books, chapters, monographs, journal articles, and other publications or abstracts, primarily in the area of anesthesiology. I have also made video presentations and other private sector publications, contributed to conference proceedings and newsletters and created electronic World Wide Web and/or Internet publications to my work.
7. I have lectured, appeared on panels, and served as a visiting professor throughout the United States and in Paris, Hong Kong and Japan.
8. My credentials are set forth in greater detail in the curriculum vitae, a true and correct copy of which is attached hereto, incorporated herein, and marked as Lubarsky Exhibit 1.
9. I have previously testified in this matter as an expert in anesthesiology.
10. I have reviewed the protocol for execution of a death sentence in Tennessee.
11. I have reviewed the Lethal Injection Recorder Checklists from the executions of Robert Glen Coe, (Lubarsky Exhibit 2), Philip Workman, (Lubarsky Exhibit 3), and Steve Henley, (Lubarsky Exhibit 4).
12. I have reviewed the autopsy report of Robert Glen Coe, (Lubarsky Exhibit

5), the autopsy report of Philip Workman, (Lubarsky Exhibit 6), and the autopsy report of Steve Henley, (Lubarsky Exhibit 7).

13. I have reviewed the deposition and hearing testimony in this matter of Bruce Levy, M.D.
14. I have reviewed the affidavit of Stacy Rector, an eyewitness to the execution of Steve Henley, and the attached newspaper articles, (Lubarsky Exhibit 8). These accounts indicate that Mr. Henley's skin color turned blue to purple during the course of his execution. (Lubarsky Exhibit 8, Bates 02 & 04).
15. The Tennessee lethal injection protocol is comprised of the intravenous administration of sodium thiopental, pancuronium bromide and potassium chloride.
16. Adequate anesthesia during an execution by lethal injection is necessary to mitigate the suffering of the condemned. If adequate anesthesia has not been administered, or does not get to the patient, or wears off during the procedure, the condemned will experience the pain of suffocation caused by the administration of pancuronium bromide and feel severe pain from the intravenous administration of potassium chloride. At the same time, the condemned will be unable to communicate his pain because the pancuronium bromide will paralyzed his face, his arms and his entire body so that he cannot express himself either verbally or otherwise.
17. Post-mortem sodium thiopental levels, determined from blood drawn

immediately upon death, are the best, available evidence to determine whether an executed inmate was adequately anesthetized throughout the execution procedure.

18. An extensive review of the medical literature indicates that post-mortem sodium thiopental levels (of blood drawn at or very near the time of death) reflect those at the time of death.
19. Drugs that are sequestered in the body tissues, including sodium thiopental, undergo a post-mortem redistribution that is slight and likely to increase blood levels compared to actual levels at death.
20. To the extent that post-mortem sodium thiopental levels do not accurately reflect the levels of sodium thiopental in the condemned at the time of death, the reported post-mortem level would be elevated. The elevation of the sodium thiopental level is caused by post-mortem distribution.
21. The Robert Coe autopsy report shows the level of thiopental to be 10200ng/ml, which is .0102 mg/ml, which is 10.2 mg/L. (Exhibit 5, Aegis lab report Bates 13).
22. Within a reasonable degree of medical certainty, the post-mortem level of thiopental measured in Mr. Coe would not be sufficient to produce unconsciousness or anesthesia. This means that during the execution procedure, Mr. Coe was probably awake, suffocating in silence, and feeling the searing pain caused by the intravenous injection of potassium chloride.
23. The reported level of pancuronium bromide in Mr. Coe's blood would be

sufficient to cause full paralysis and death by suffocation.

24. Within a reasonable degree of medical certainty, Mr. Coe's death was caused by suffocation induced by pancuronium bromide at a time when he was not adequately anesthetized.
25. The Philip Workman autopsy report shows the level of thiopental to be 18.9 mg/L. (Exhibit 6, autopsy report Bates 03; Aegis lab report Bates 07).
26. Within a reasonable degree of medical certainty, the post-mortem level of thiopental measured in Mr. Workman indicates that he was not fully anesthetized during his execution.
27. In addition, Mr. Workman's autopsy was not performed, and blood was not drawn, until ten (10) days after his execution. (Exhibit 6, autopsy report Bates 03).
28. The blood sample used to determine Mr. Workman's level of thiopental was taken from his heart. (Exhibit 6, autopsy report Bates 03; Aegis lab report Bates 07).
29. According to the testimony of Dr. Levy, who performed Mr. Workman's autopsy, thiopental redistributes from the extremities back to the heart following death, making those levels higher than would be found at the time of death. (Exhibit 9, 9/6/07 hearing transcript Vol. 3, p.733-34). I agree with this testimony.
30. Within a reasonable degree of medical certainty, due to the time lapse and post-mortem distribution, there is an even greater probability that the

level of thiopental in Mr. Workman at the time of his death was less than 18.9 mg/L found in the heart blood drawn ten days after his death.

31. Within a reasonable degree of medical certainty, the post-mortem drug level of thiopental measured in Mr. Workman would not be sufficient to produce unconsciousness or anesthesia. This means that during the execution procedure, Mr. Workman was probably awake, suffocating in silence, and feeling the searing pain caused by the intravenous injection of potassium chloride.
32. The reported level of pancuronium bromide in Mr. Workman's blood would be sufficient to cause full paralysis and death by suffocation.
33. Within a reasonable degree of medical certainty, Mr. Workman's death was caused by suffocation induced by pancuronium bromide at a time when he was not adequately anesthetized.
34. The Steve Henley autopsy report shows the level of thiopental to be 8.31 mg/L. (Exhibit 7, autopsy report Bates 02 & 06; Aegis lab report Bates 09).
35. Within a reasonable degree of medical certainty, the post-mortem level of thiopental measured in Mr. Henley would not be sufficient to produce unconsciousness or anesthesia. This means that during the execution procedure, Mr. Henley was probably awake, suffocating in silence, and feeling the searing pain caused by the intravenous injection of potassium chloride.
36. In addition, Mr. Henley's autopsy report reveals his potassium level was

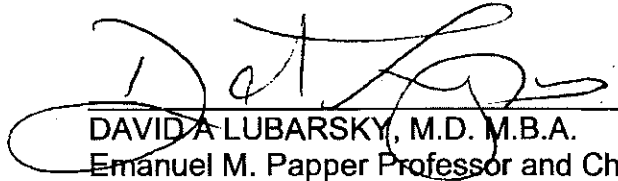
not elevated. (Exhibit 7, autopsy report Bates 02 & 06; Aegis lab report Bates 19).

37. A normal potassium level is consistent with the observations of witnesses to Mr. Henley's execution that the color of his face began to turn blue to purple approximately seven (7) minutes after the execution. This is because a change of color occurs when non-oxygenated blood is pumped to the extremities by a beating heart.
38. The reported level of pancuronium bromide in Mr. Henley's blood would be sufficient to cause full paralysis and death by suffocation.
39. Within a reasonable degree of medical certainty, Mr. Henley's death was caused by suffocation induced by pancuronium bromide at a time when he was not adequately anesthetized.
40. According to the testimony of Dr. Levy, the catheters used in the executions of Robert Coe and Philip Workman remained properly placed. (Exhibit 9, 9/6/07 hearing transcript Vol. 3, p.726; 9/7/07 hearing transcript Vol. 4, p.903-04). This is also reflected on the autopsy reports. (Exhibit 5, autopsy report Bates 05; Exhibit 6, autopsy report Bates 05).
41. According to the autopsy report of Steve Henley, the catheters used in his execution remained properly placed. (Exhibit 7, autopsy report Bates 04).
42. I conclude, within a reasonable degree of scientific certainty and based upon the Tennessee protocol, the results of all autopsies performed following a Tennessee execution by lethal injection, the statements of witnesses to the execution of Steve Henley, the testimony of Dr. Levy,

and, the lethal injection Recorder Checklists for the executions of Mr. Coe, Mr. Workman, and Mr. Henley, that a person subjected to the Tennessee lethal injection protocol will not be adequately anesthetized and will suffer a cruel and inhumane death.

FURTHER AFFIANT SAITH NAUGHT.

I declare under penalty of perjury that the foregoing is true and correct.



DAVID A. LUBARSKY, M.D. M.B.A.
Emanuel M. Papper Professor and Chair
Department of Anesthesiology
Perioperative Medicine and Pain Management
University of Miami Miller School of Medicine
and
Professor
Department of Management
University of Miami School of Business

STATE OF FLORIDA)

COUNTY OF METRO-DADE)

Sworn to and subscribed before me by David A. Lubarsky, who provided personal identification or is personally known to me, this 22 day of April, 2010.



Notary Public

My Commission Expires:

6/20/13

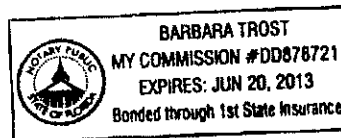


Exhibit 1 to Dr. Lubarsky's Affidavit

UNIVERSITY OF MIAMI
CURRICULUM VITAE

Date: July 2007

PERSONAL

Name: David Alan Lubarsky, M.D., M.B.A.

Office phone: (305) 585-7037
Office address: Jackson Health System
1611 NW 12th Avenue, C301
Miami, Florida 33136

Date of birth: August 2, 1959
Place of birth: New York, NY

Present academic rank and title:

Primary academic appointment: Emanuel M. Papper Professor and Chairman
Department of Anesthesiology
Professor of Anesthesiology, with tenure
University of Miami School of Medicine

Secondary academic appointment: Professor
Department of Management
University of Miami School of Business

Citizenship: U.S.A.

HIGHER EDUCATION

Washington University, St. Louis, MO, May, 1980, B.A.
Washington University School of Medicine, St. Louis, MO, May, 1984, M.D.
Fuqua School of Business, Duke University, Durham, NC, August, 1999, M.B.A.

Medical licensure: November, 2002 – Florida State License #ME86449
December, 2001-Florida Board of Medicine
Medical Faculty Certificate-Number: 1457
July, 1988–North Carolina State License #32774
July, 1985–New York State License #162663-1

Certification: National Board of Medical Examiners–July, 1985
Part I American Board of Anesthesiology (99th%) –July, 1987
Part II Board Certification–October, 1988
Recertified American Board of Anesthesiology – July 2004
American Academy of Pain Management–1991

Previous Academic Appointments

Professor (with tenure) and Vice-Chairman,
Chief Division of General, Vascular and Transplant Anesthesia and Surgical Intensive Care
Department of Anesthesiology,
Duke University Medical Center
July 1988 – November 2001

Adjunct Professor, Fuqua School of Business, Duke University 6/2000-6/2002

Academic training:

Weekend Executive Masters in Business Administration (WEMBA) Program
The Fuqua School of Business
Duke University
January 1998 – August 1999
Honored as Fuqua Scholar (top of class)

Fellowship in Transesophageal Echocardiography
Duke University Medical Center
Fiona M. Clements, M.D., Chief, Division of Cardiac Anesthesiology
Joseph A. Kisslo, M.D., Director, Echocardiography Lab
October 1992–December 1992

Fellowship in Cardiac and Vascular Anesthesia and Clinical Research
New York University Medical Center
Stephen Thomas, M.D., Division Head
July 1987–June 1988

Residency
Department of Anesthesiology
New York University Medical Center
Herman Turndorf, M.D., Professor and Chairman
July 1985–June 1987

Internship
Department of Medicine
Westchester County Medical Center
Richard Levere, M.D., Chairman
July 1984–June 1985

PUBLICATIONS

Books published:

1. Gallagher C, Martinez-Ruiz R, Lubarsky DA: Anesthesia Unplugged A Step by Step Guide to Techniques and Procedures. New York, NY: McGraw Hill, 2007. p. 1 – 456.

2. Robertson KM, Lubarsky DA, Ranasinghe S: Anesthesiology Pearls of Wisdom 2nd edition. New York, NY: McGraw Hill, 2005. p. 1 – 431.
3. Thiemann LJ, Robertson KM, Lubarsky DA, Ranasinghe S: Pearls of Wisdom Nurse Anesthetist Exam Review. New York, NY: McGraw Hill, 2005. p. 1 – 425.
4. Robertson KM, Lubarsky DA: Preparing for the Written Boards: Pearls of Wisdom. Boston Medical Publishing, June 2001.
5. Gallagher CJ, Hill SE, Lubarsky DA: Board Stiff Too: Preparing for the Anesthesia Orals. Boston, Butterworth-Heinemann, 2000.
6. Lubarsky DA: The Answer Key to the Written Boards. Durham, NC, A+ Homeprep, 1992, 2nd edition 1993, 3rd edition 1994, 4th edition 1995.
7. Gallagher CJ, Lubarsky DA: Preparing for the Anesthesia Orals: Board Stiff. Boston, Butterworths, 1990.

Book chapters and monographs published:

1. Ellis J, Roizen M, Mantha S, Schwartz G, McKinsey J, Lubarsky D, Kanaan C: Anesthesia for Vascular Surgery. Clinical Anesthesia 5th Edition, Lippincott Williams & Wilkins Publishing, June 24, 2005, Chapter 32:933 – 73.
2. Lubarsky DA and Locke J, Ambulatory Anesthesia Billing, Ambulatory Anesthesia & Perioperative Analgesia Manual, McGraw-Hill Companies, 2005, Chapter 12:115 – 122.
3. J.G. Reves, Peter S.A. Glass, David A. Lubarsky, Matthew D. McEvoy: Intravenous Nonopioid Anesthetics. Miller's Anesthesia 6th Edition, Elsevier Publishing, 2004 chapter 10.
4. Gayer S and Lubarsky DA: Cost-effective Anti-emesis. In International Anesthesiology Clinics: Post-operative nausea and Vomiting 2003 Vol 41(4):145-164.
5. Knudsen NW, Sebastian MW, Lubarsky DA: Cost containment in vascular surgery. Seminars in Cardiothoracic and Vascular Anesthesia 2000 (November) Vol 4(4):256-264.
6. Rock P, Lubarsky DA: The business of perioperative medicine. Anesthesiology Clinics of North America 18(3):677-698, 2000.
7. Reves JG, Glass PSA, Lubarsky DA: Nonbarbiturate intravenous anesthetics, Anesthesia, fifth edition. Edited by Miller RD. New York, Churchill Livingstone, pp 228–272, 2000.
8. Dear GdeL, Panten RR, Lubarsky DA: Operating room information systems. Seminars in Anesthesia, Perioperative Medicine and Pain. Edited by Katz RL and Ward DS. Vol 18, No 4 (December), pp 322-333. 1999.
9. Lubarsky DA: How to write clinical guidelines for value-based anesthesia care, Anesthesia Practice Management: How to Assess and Promote Value. Monograph of the Ad Hoc Committee on Value-Based Anesthesia Care. Copyright American Society of Anesthesiologists, 1999.

10. Tardiff BE, Jollis JG, **Lubarsky DA**: Use of information systems and large databases in cardiovascular medicine, Outcome Measurements in Cardiovascular Medicine. Edited by Tuman KJ. Lippincott Williams & Wilkins, pp 67–80, 1999.
11. Lineberger CK, **Lubarsky DA**: Anesthesia for carotid endarterectomy. *Curr Opin Anaesthesiol* 11:479–484, 1998.
12. Panten RR, Dear GdeL, **Lubarsky DA**: Pharmacoeconomics and practice guidelines: Moving toward value-based care, Problems in Anesthesia, Vol. 10, No. 3. Edited by Arens JF, Prough DS. Baltimore, Williams & Wilkins, pp 285–291, 1998.
13. Inge WW, Grichnik KP, Lineberger CK, **Lubarsky DA**: Vascular surgery in the geriatric patient, Geriatric Anesthesiology. Edited by McLeskey CH. Baltimore, Williams & Wilkins, pp 637–644, 1997.
14. **Lubarsky DA**, Moskop RJ: The “niche” of etomidate in current anesthetic practice, Progress in Anesthesia. Edited by Eisenkraft JB. Philadelphia, WB Saunders, pp 155–168, 1994.
15. Reves JG, Glass PSA, **Lubarsky DA**: Nonbarbiturate intravenous anesthetics, Anesthesia, Fourth edition. Edited by Miller RD. New York, Churchill Livingstone, pp 247–289, 1994.
16. Gallagher C, Sladen RN, **Lubarsky DA**: Thoracotomy: postoperative complications, Problems in Anesthesia: Thoracic Anesthesia, Vol. 4, No. 2, June 1990. Edited by Brodsky JB. Philadelphia, JP Lippincott, pp 393–415, 1990.
17. **Lubarsky DA**, Rodman R: Carotid endarterectomy: General versus regional anesthesia, Problems in Anesthesia: Cardiovascular Anesthesia, Vol. 1, No. 3, July–September 1987. Edited by Thomas SJ. Philadelphia, JP Lippincott, pp 496–510, 1987.

Journals:

1. Dexter F, Vigoda M, **Lubarsky D**, Bimbach D, Duncan R: Use of an Anesthesia Information System to Identify and Trend Gender Disparities in Outpatient Medical Management of Patients with Coronary Artery Disease. *Anesth Analg* 2007 (in publication)
2. Gan TJ, **Lubarsky DA**: “How much are patients willing to pay to avoid postoperative muscle pain associated with Succinylcholine?” *Journal of Clinical Anesthesia* 2007 (in publication)
3. Vigoda M, **Lubarsky DA**, Gencorelli F: Discrepancies in Medication Entries Between Anesthetic and Pharmacy Records Using Electronic Databases. *Anesth Analg* 2007 (in publication)
4. Vigoda M, **Lubarsky DA**: Discrepancy Between Picis and Pyxis. *Anesth Analg* 2007 (in publication)
5. Zimmers TA, Sheldon JP, **Lubarsky DA**, Lopes-Munoz F, Waterman L, Weisman R, Koniaris LG: Lethal Injection for Execution: Chemical Asphyxiation? *Plos Medicine* 2007; 4:1-8.
6. Zimmers TA, **Lubarsky DA**: Physician Participation in Lethal Injection Executions Current Opinion in Anesthesiology. *Current Opinion in Anaesthesiology* 2007 20(2):147-151.

7. Dexter F, **Lubarsky DA**: Version 1: Psychological Basis for Anesthesiologists' Operating Room Managerial Decision Making on the Day of Surgery. *Anesth Analg* 2007 (in publication)
8. Dexter F, Willemsen-Dunlap A, Dow A, Lee J, **Lubarsky DA**: Version 2: Computer Generated Recommendations vs. Status Displays to Aid Operating Room Managerial Decision Making on the Day of Surgery. *Anesth Analg* 2007 (in publication)
9. Candiotti KA, Nhuch F, Kamat A, Deepika K, Arheart KL, Birnbach DJ, **Lubarsky DA**: Granisetron vs. Ondansetron Treatment for Breakthrough Postoperative Nausea and Vomiting After Prophylactic Ondansetron Failure: A Pilot Study. *Anesth Analg* 2007 104:1370-1373.
10. O'Sullivan CT, Dexter F, **Lubarsky DA**, Vigoda M: Evidence-based Management Assessment of Return on Investment from Anesthesia Information Management Systems. *AANA Journal*, 2007 vol. 75; 1.
11. **Lubarsky DA**, Candiotti K, Harris E; Understanding Modes of Moderate Sedation during Gastrointestinal Procedures: A Current Review of the Literature. *J Clin Anesth*, 2007 (in publication)
12. **Lubarsky DA**, Harris E; Complication of Anesthesia (Local, Topical, General). *Lancet*, 2007 (in publication)
13. Olson RP, **Lubarsky D**; Anemia Screening in Elective Surgery: Definition, Significance and Patients' Interests. *Anesth Analg*, 2006 103:779-780.
14. Vigoda MM, Gencorelli F, **Lubarsky DA**; Changing Medical Group Behaviors: Increasing the Rate of Documentation Quality Assurance Events Using an Anesthesia Information System. *Anesth Analg* 2006 103:390-395.
15. Vigoda MM, **Lubarsky DA**; The Medicolegal Importance of Enhancing Timeliness of Documentation When Using an Anesthesia Information System and the Response to Automated Feedback in an Academic Practice. *Anesth Analg* 2006 103:131-136.
16. Vigoda MM, **Lubarsky DA**; Failure to Recognize Loss of Incoming Data into an Anesthesia Record Keeping System Increased Medical Liability. *Anesth Analg*, 2006 102:1798-1802.
17. Zimmers TA, **Lubarsky DA**, Sheldon JP, Koniaris LG; Inadequate Anaesthesia in Lethal Injection for Execution – Author's Reply. *The Lancet* 2005, vol. 366; 9491:1074-1076.
18. Koniaris LG, Zimmers TA, **Lubarsky DA**, Sheldon JP; Evidence of Inadequate Anaesthesia in Lethal Injection for Execution. *The Lancet* 2005, vol. 365; 9468:1412-1414.
19. **Lubarsky D**, Reves JG; Effect of Subspecialty Organization of an Academic Department of Anesthesiology on Faculty Perceptions of the Workplace. *Jamcollsurg* 2005, vol. 201; 3:434-437.
20. Candiotti K, Kamat A, Barach P, Nhuch F, **Lubarsky D**, Birnbach D; Emergency Preparedness for Biological and Chemical Incidents – A Survey of Anesthesiology Residency Programs in the United States. *Anesth Analg* 2005 101:1135-1140.

21. Olson RP, Stone A, **Lubarsky D**; Prevalence and Significance of Low Preoperative Hemoglobin in ASA 1 or 2 Outpatient Surgery Candidates. *Anesth Analg* 2005, 101:1337-1340.
22. Candiotti KA, Birnbach DJ, **Lubarsky DA**, Nhuch F, Kamat A, Koch WH, Nikoloff M, Wu L, Andrews D; The Impact of Pharmacogenomics on Postoperative Nausea and Vomiting. *Anesthesiology* 2005 102:543-549.
23. Wachtel RE, Dexter F, **Lubarsky D**: Financial Implications of a Hospital's Specialization in Rare Physiologically Complex Surgical Procedures. *Anesthesiology* 2005 103(1); 161-167.
24. **Lubarsky D**: Incentivize Everything, Incentivize Nothing. *Anesth Analg* 2005;100:490-2.
25. Macario A, Dexter F, **Lubarsky D**: Meta- Analysis of Trials Comparing Postoperative Recovery After Anesthesia with Sevoflurane or Desflurane. *Am J Health-Syst Pharm* 62:63-68, 2005.
26. Dexter F., **Lubarsky, D**: Using Length of Stay Data from a Hospital to Evaluate Whether Limiting Elective Surgery at the Hospital is an Inappropriate Decision. *J Clin Anesth* 2004 16:421-425.
27. Dexter F, Abouleish A, Whitten C, **Lubarsky D**, Epstein R: Impact of Reducing Turnover times on Staffing Costs. *Anesth Analg* 2004 98:872.
28. Gan TJ, **Lubarsky DA**, Flood EM, Thanh T, Masukopf J, Mayne T, Chen C: Patient preferences for acute pain treatment. *Br. J. Anaesth* 2004 92:681-688.
29. Olson, Ronald P., Schow, Adam J., McCann, Richard, **Lubarsky, David A.**, Gan, Tong J: Absence of adverse outcomes in hyperkalemic patients undergoing vascular access surgery: [Absence de complications chez des patients hyperkaliemiques devant subir une intervention chirurgicale d'accès vasculaire]. *Can J Anesth* 2003 50:553-557.
30. Abouleish AE, Epstein RH, **Lubarsky DA**, Dexter F: Use of operating room information system data to predict the impact of reducing turnover times on staffing costs. *Anesth Analg* 2003 97:1119 – 1126.
31. Gan TJ, Ing RJ, Dear G, Wright D, El-Moalem HE, **Lubarsky DA**: How much are patients willing to pay to avoid intraoperative awareness? *J Clin Anesth* 15:108 – 112, 2003
32. Dexter F, Macario A, Traub RD, **Lubarsky DA**: Operating room utilization alone is not an accurate metric for the allocation of operating room block time to individual surgeons with low caseloads. *Anesthesiology*, May 2003 98:5.
33. Abouleish AE, Dexter F, Epstein RH, **Lubarsky DA**, Whitten CW, Prough DS: Labor costs incurred by anesthesiology groups due to operating rooms not being allocated and cases not being scheduled to maximize operating room efficiency. *Anesth Analg* 2003;96:1109 – 1113.
34. Schow AJ, **Lubarsky DA**, Gan TJ: Can succinylcholine be safely used in hyperkalemic patients? *Anesth Analg* 2002 95:119-122.
35. Dexter F, Blake JT, Penning DH, **Lubarsky DA**: Calculating a potential increase in hospital margin for elective surgery by changing operating room time allocations or increasing nursing staffing to permit completion of more cases. *Anesth Analg* 2002 94:138-142

36. Dexter F, Lubarsky DA, Blake JT: Sampling error can significantly affect measured hospital financial performance of surgeons and resulting operating room time allocations. *Anes Analg* 95:184-188, 2002.
37. Dexter F, Blake JT, Penning DH, Sloan B, Chung P, Lubarsky DA: Use of linear programming to estimate impact of changes in a hospital's operating room time allocation on perioperative variable costs. *Anesthesiology* 2002; 96:718-724.
38. Dexter F, Gan TJ, Naguib M, Lubarsky DA: Cost identification analysis for succinylcholine. *Anesth Analg* 92:693-699, 2001.
39. Dexter F, Macario A, Lubarsky DA: The impact on revenue of increasing patient volume at surgical suites with relatively high operating room utilization. *Anesth Analg* 92:1215-1221, 2001.
40. Gan TJ, Sloan F, Dear G, El-Moalem H, Lubarsky DA: How much are patients willing to pay for avoidance of postoperative nausea and vomiting? *Anesth Analg* 92:393-400, 2001.
41. Bell ED, Penning DH, Cousineau EF, White WD, Hartle AJ, Gilbert WC, Lubarsky DA: How much labor is in a labor epidural? Manpower cost and reimbursement for an obstetric analgesia service in a teaching institution. *Anesthesiology* 92:851-8, 2000.
42. Hill RP, Lubarsky DA, Phillips-Bute B, Fortney JT, Creed MR, Glass PSA, Gan TJ: Cost-effectiveness of prophylactic antiemetic therapy with ondansetron, droperidol, or placebo. *Anesthesiology* 92:958-67, 2000.
43. Lubarsky DA, Fisher SD, Slaughter TF, Green CL, Lineberger CK, Astles JR, Greenberg CS, Inge III WW, Krucoff MW: Myocardial ischemia correlates with reduced fibrinolytic activity following peripheral vascular surgery. *J Clin Anesth* 12:136-41, 2000.
44. Lubarsky DA, Reves JG: Using Medicare multiples results in disproportionate reimbursement for anesthesiologists compared to other physicians. *J Clin Anesth* 12:238-241, 2000.
45. Dexter F, Macario A, Manberg PJ, Lubarsky DA: Computer simulation to determine how rapid anesthetic recovery protocols to decrease the time for emergence or increase the phase I postanesthesia care unit bypass rate affect staffing of an ambulatory surgery center. *Anesth Analg* 88:1053-1063, 1999.
46. Dexter F, Macario A, Lubarsky DA, Burns DD: Statistical method to evaluate management strategies to decrease variability in operating room utilization: Application of linear statistical modeling and Monte-Carlo simulation to operating room management. *Anesthesiology* 91:262-274, 1999.
47. Dexter F, Macario A, Traub RD, Hopwood M, Lubarsky DA: An operating room scheduling strategy to maximize the use of operating room block time: computer simulation of patient scheduling and survey of patients' preferences for surgical waiting time. *Anesth Analg* 89:7-20, 1999.
48. Zhou J, Dexter F, Macario A, Lubarsky DA: Relying solely on historical surgical times to estimate accurately future surgical times is unlikely to reduce the average length of time cases finish late. *J Clin Anesth* 11:601-605, 1999.

49. Dexter F, **Lubarsky DA**, Gilbert BC, Thompson C: A method to compare costs of drugs and supplies among anesthesia providers: A simple statistical method to reduce variations in cost due to variations in case mix. *Anesthesiology* 88:1350-1356, 1998.
50. Dexter F, Penning DH, **Lubarsky DA**, DeLong E, Sanderson I, Gilbert BC, Bell E, Reves JG: Use of an automated anesthesia information system to determine reference limits for vital signs during cesarean section under general or spinal anesthesia: Application to medical malpractice claims. *J Clin Monit Comput* 14:491-498, 1998.
51. Lineberger CK, **Lubarsky DA**: Con: General anesthesia and regional anesthesia are equally acceptable choices for carotid endarterectomy. *J Cardiothorac Vasc Anesth* 12:115-117, 1998.
52. Pisetsky MA, **Lubarsky DA**, Capehart BP, Lineberger C, Reves JG: Valuing the work performed by anesthesiology residents and the financial impact on teaching hospitals of a reduced anesthesia residency program size. *Anesth Analg* 87:245-254, 1998 [published erratum appears in *Anesth Analg* 1998 Nov;87(5):1031].
53. Coleman RL, Sanderson IC, **Lubarsky DA**: Anesthesia information management systems as a cost containment tool. *CRNA* 8(2): 77-83, 1997.
54. **Lubarsky DA**, Glass PSA, Ginsberg B, Dear G de L, Dentz ME, Gan TJ, Sanderson IC, Mythen MG, Dufore S, Pressley CC, Gilbert WC, White WD, Alexander ML, Coleman RL, Rogers MC, Reves JG: The successful implementation of pharmaceutical practice guidelines: Analysis of associated outcomes and cost savings. *Anesthesiology* 86:1145-1160, 1997.
55. **Lubarsky DA**, Sanderson IC, Gilbert WC, King KP, Ginsberg B, Dear G de L, Coleman RL, Pafford TD, Reves JG: Using an anesthesia information management system as a cost containment tool: Description and validation. *Anesthesiology* 86:1161-1169, 1997.
56. Astles JR, **Lubarsky DA**, Loun B, Sedor FA, Toffaletti JG: Pneumatic transport exacerbates interference of room air contamination in blood gas samples. *Arch Path Lab Med* 120(7):642-647, 1996.
57. **Lubarsky DA**: Fast track in the post-anesthesia care unit: Unlimited possibilities? *J Clin Anesth* 8:70S-72S, 1996.
58. Dentz ME, **Lubarsky DA**, Smith LR, McCann RL, Moskop RJ, Inge W, Grichnik KP: A comparison of amrinone with sodium nitroprusside for control of hemodynamics during infrarenal abdominal aortic surgery. *J Cardiothorac Vasc Anesth* 9:486-490, 1995.
59. Hadzija BW, **Lubarsky DA**: Compatibility of etomidate, sodium thiopental and propofol injections with other drugs commonly administered during induction of anesthesia. *Am J Health-Syst Pharm* 52:997-999, 1995.
60. **Lubarsky DA**, Smith LR, Sladen RN, Mault JR, Reed RL: Defining the relationship of oxygen delivery and consumption: Use of biologic system models. *J Surg Res* 58:503-508, 1995.
61. **Lubarsky DA**: Understanding cost analyses: Part 1. A practitioner's guide to cost behavior. *J Clin Anesth* 7:519-521, 1995.

62. Astles R, Lubarsky DA, Loun B, Sedor F, Toffaletti J: Pneumatic tube system exacerbates the effect of room air contamination. *Clin Chem* 41:155, 1995.
63. Lubarsky DA, Hahn C, Bennett DH, Smith LR, Brechhoeft SJ, Klein HG, Reves JG: The hospital cost (fiscal year 1991/1992) of a simple perioperative allogeneic red blood cell transfusion during elective surgery at Duke University. *Anesth Analg* 79:629-637, 1994.
64. Moskop RJ, Lubarsky DA: Carbon dioxide embolism during a laparoscopic cholecystectomy. *South Med J* 87:414-415, 1994.
65. Grichnik KP, Dentz M, Lubarsky DA: Hemodynamic collapse during thoracoscopy. *J Cardiothorac Vasc Anesth* 7:588-589, 1993.
66. Dentz ME, Lubarsky DA: Leontiasis ossea: an unusual presentation of a difficult airway. *Anesth Analg* 76:678-679, 1993.
67. Lubarsky DA, Griebel JA, Camporesi EC, Piantadosi CA: Comparison of systemic oxygen delivery and uptake with NIR spectroscopy of brain during normovolemic hemodilution in the rabbit. *Resuscitation* 23:45-57, 1992.
68. Lubarsky DA, Gallagher C, Berend JL: Secondary polycythemia does not increase the risk of perioperative hemorrhagic or thrombotic complications. *J Clin Anes* 3:99-103, 1991.
69. Lubarsky DA, Kaufman B, Turndorf H: Anesthesia unmasking benign Wolff-Parkinson-White-Syndrome. *Anesth Analg* 68:172-4, 1989.
70. Kronenfeld MA, Lubarsky DA, Feiler M, Galloway A, Thomas SJ: The effect of ventilation on aortic blood gases during left ventricular ejection before separation from cardiopulmonary bypass. *J Cardiothorac Anes* 3:301-304, 1989.
71. Lubarsky DA, Kaufman B, Turndorf H: Anesthetic care of a patient with an intracranial hemorrhage after thrombolytic therapy. *J Clin Anes* 2:276-279, 1989.

Other works, publications, and abstracts:

1. Vigoda M, Elf R, Wu, Lubarsky DA: Intraoperative Beta Blocker Use Doesn't Change with Electronic Reminder of Patients Cardiac Status. (Abstract Presentation at the ASA Annual Meeting in Chicago, October 2006) *Anesthesiology* 2006;105:A1377.
2. Vigoda M, Elf R, Wu, Lubarsky DA: Anesthesia Information System Shows Inadequate Intraoperative B Blockade in Patients with CAD. (Abstract Presentation at the ASA Annual Meeting in Chicago, October 2006) *Anesthesiology* 2006;105:A1376.
3. Avramovich A, Lewis M, Patin S, Birnbach D, Lubarsky DA: The Curse of Eve: Maimonides' Perception of Pain. (Abstract Presentation at the ASA Annual Meeting in Chicago, October 2006) *Anesthesiology* 2006;105:A154.

4. Abouleish AE, Prough AD, **Lubarsky DA**: Unintended Consequences? Unanswered Questions? *Anesth Analg*, 2006;102:1908-b-1909-b
5. Koniaris L, Zimmers T, **Lubarsky D**: Lethal Injection Redux. *Playboy* September 2005, P54, Forum: reader Response.
6. M. Vigoda, **D. Lubarsky**: Timeliness of Documentation – Medical Legal Ramifications. (Abstract Presentation at the ASA Annual Meeting in Atlanta, October 2005) *Anesthesiology* 2005;103:A1256.
7. M. Vigoda, **D. Lubarsky**: Failure to Recognize Loss of Incoming Data While Using an Automated Anesthesia Record Keeping System Increased medical Liability Exposure. (Abstract Presentation at the ASA Annual Meeting in Atlanta, October 2005) *Anesthesiology* 2005;103:A1204.
8. M. Vigoda, **D. Lubarsky**: Unanticipated Drawbacks of Easy Access to the electronic Medical Record – Balancing Security and Availability While Preventing Unauthorized Access Attempts. (Abstract Presentation at the ASA Annual Meeting in Atlanta, October 2005) *Anesthesiology* 2005;103:A1268.
9. M. Vigoda, J. Jacque, **D. Lubarsky**, F. Dexter: Increasing QA Completion Rate is Associated with Increased Rate of Documented QA Complications. (Abstract presentation at the ASA Annual Meeting in Atlanta, October 2005) *Anesthesiology* 2005;103:A798.
10. M. Vigoda, **D. Lubarsky**, E. Varga, S. Lin: Anesthesia Information System Demonstrates Use of Intraoperative Beta Blockers in Patients “at risk” for CAD Undergoing Non-Cardiac Surgery. (Abstract presentation at the ASA Annual Meeting in Atlanta, October 2005) *Anesthesiology* 2005; 103:A1278.
11. Candiotti K, Curia L, Rodriguez Y, Birnbach D, **Lubarsky D**: CYP2D6 Frequencies in the South Florida Population as Determined by the Amplichip®CYP450 Assay. (Abstract presentation at the ASA Annual Meeting in Atlanta, October 2005) *Anesthesiology* 2005; 103:A788
12. Candiotti K, Saltzman B, Curia L, Rodriguez Y, **Lubarsky D**: A Comparison of Different Types of HAZMAT Respirators by Anesthesiologists. (Abstract presentation at the ASA Annual Meeting in Atlanta, October 2005) *Anesthesiology* 2005; 103:A1194.
13. K. Candiotti, A. Kamat, F. Nhuch, **D. Lubarsky**, D. Birnbach: Treating PONV Ondansetron Prophylaxis Failures: A Comparison of Redosing with Ondansetron vs. Granisetron. (Abstract presentation at the IARS 79th Clinical and Scientific Congress in Honolulu, Hawaii, March 11 – 15, 2005).
14. **Lubarsky D**: Financial Implications of a Hospital’s Specialization in Rare Physiologically Complex Surgical Procedures. (Poster presentation at the ASA Annual Meeting in Las Vegas, NV, October 2004) *Anesthesiology* 2004; 101:A1409.
15. Estacio R, **Lubarsky D**, Barach P: Cardiac Arrest and Death during Anesthesia Secondary to Iatrogenic Hyperkalemia: Case Report and Database Review. (Poster presentation at the ASA Annual Meeting in Las Vegas, NV, October 2004) *Anesthesiology* 2004; 101:A1287.

16. Vigoda M, Gencorelli F, Lin S, **Lubarsky D**, Birnbach D: Anesthesia Information System Helps Identify Missed Opportunities for Perioperative Beta Blockade. (Abstract presentation at the ASA Annual Meeting in Las Vegas, NV, October 2004) *Anesthesiology* 2004; 101:A1378.
17. Vigoda M, Gencorelli F, Lin S, Birnbach D, **Lubarsky D**: Anesthesia Information System Demonstrates inadequacy of Perioperative Beta Blocker Therapy. (Abstract presentation at the ASA Annual Meeting in Las Vegas, NV, October 2004) *Anesthesiology* 2004; 101:A1381.
18. Candiotti K, Nhuch F, Kamat A, **Lubarsky D**, Birnbach D: Pharmacogenomics Affects Postoperative Nausea and Vomiting: The Effects of CYP2D6 Allele Frequency on Ondansetron Prophylaxis Failure. (Abstract presentation at the ASA Annual Meeting in Las Vegas, NV, October 2004) *Anesthesiology* 2004; 101:A1611.
19. Macario A., **Lubarsky D**: The Impact of Desflurane and Sevoflurane on the Risk of Postoperative nausea and vomiting: a systematic review of the published literature. (Abstract presentation at the IARS 78th Clinical and Scientific Congress, Tampa, Florida, March 2004).
20. Donnelly AJ, Macario A, **Lubarsky DA**: Pharmacoeconomics of Inhaled Anesthetics. (Special Report Activity, ICPME accredited, McMahon Publishing Group, February 2004.
21. Candiotti KA, **Lubarsky DA**, Kamat A, Restler C: Implementation of Granisetron 0.1mg for Prophylaxis of P.O.N.V. (Poster Presentation at the American Society of Healthcare Pharmacists meeting in New Orleans, December 8-10, 2003).
22. Breslin D, **Lubarsky D**, Hopkins M, Gan TJ: Delayed Discharge from the Post Anesthetic Care Unit. An Ongoing Improvement Process. (Abstract presentation at the ASA Annual Meeting, San Francisco, California, October 2003) *Anesthesiology* 2003; 99:A1136.
23. Epstein RH, Dexter F, Abouleish AE, Whitten CW, **Lubarsky DA**: Cost Savings from Reducing Turnover Time Result From Reductions in Surgical OR Allocations, Not Less Overtime. (Abstract presentation at the ASA Annual Meeting, San Francisco, California, October 2003) *Anesthesiology* 2003; 99:A1346.
24. Dexter F, **Lubarsky DA**, Uncertainty in the Operating Rooms in Which Cases are Performed Has Little Effect on Operating Room Allocations and Efficiency (Award Winning Abstract Presentation at the AACD 15th Annual Meeting, Orlando, Florida, October 13, 2002).
25. Dexter F, **Lubarsky DA**, Anesthesia Groups with Exclusive Contracts can Quantify the Cost of Operating Rooms Not Being Allocated and Cases Not Being Scheduled to Maximize Operating Room Efficiency (Award Winning Abstract Presentation at the AACD 15th Annual Meeting, Orlando, Florida, October 13, 2002).
26. Gan TJ, **Lubarsky DA**, Main causes of delay in-patient discharge from PACU in a major teaching hospital. (Abstract Presentation at ASA Annual Meeting, Orlando, FL, October 2002) *Anesthesiology* 2002;96:A1136.
27. **Lubarsky DA**. Reves J. Straightening out RVU Formulas (letter). *ASA Newsletter*. June 2002.

28. Schow AJ, Lubarsky DA, Gan TJ: Can succinylcholine be safely used in hyperkalemic patients? (Abstract Presentation at the 2001 ASA Annual Meeting) *Anesthesiology* 2001;95:A1009.
29. Olson RP, Schow AJ, Gan TJ, Lubarsky DA. Vascular Access Surgery in Hyperkalemic Patients. (Abstract Presentation at the 2001 ASA Annual Meeting) *Anesthesiology* 2001;95:A1195.
30. Gan T, Dear G, Wright MD, El-Moalem H, Sigl J, Lubarsky DA. Patient Willingness to pay for avoidance of anesthesia related postoperative outcomes. (Poster Presentation at the IARS 75th Clinical and Scientific Congress, March 16-20, 2001).
31. Wright D, Lubarsky DA, Dear G, Sigl J, Reeves J, Gan T. Willingness to pay to avoid intra-operative awareness. (Poster Presentation at the IARS 75th Clinical and Scientific Congress, March 16-20, 2001).
32. Gan TJ, Lubarsky DA: Cost effectiveness ratio: an often misunderstood term (letter). *Anesth Analg* 88(5):1191-2, 1999
33. Petros KO, Knudsen NK, Sebastian MW, Lubarsky DA. Impact of education and practice guidelines for propofol use in the surgical intensive care unit. (Poster Presentation at ACCP/ESCP 1st International Congress on Clinical Pharmacy, Orlando, FL, April 1999) *Pharmacotherapy* 19(4):P350, 1999.
34. Lubarsky DA, DeLong ER: The impact of choice of muscle relaxant on postoperative recovery time. *Anesth Analg* 87:499-500, 1998.
35. Dear G, Lubarsky DA, Gilbert W, J Reves: Compliance with HCFA terminology; an automated system for audit of anesthesia documentation. *Anesth Analg* 86:S27, 1998.
36. Dear GdeL, King KP, Gilbert WC, Lubarsky DA: Is it possible to maintain drug cost savings: a two year follow-up report. *Anesthesiology* 89:A1352, 1998.
37. DeLong ER, Kwatra MM, Gan TJ, Glass PSA, Sanderson IC, Gilbert WC, Coleman RL, Lubarsky DA, Reves JG: A large population study reveals reduced anesthetic requirements in females. *Anesthesiology* 89:A126, 1998.
38. DeLong ER, Kwatra MM, Gan TJ, Glass PSA, Sanderson IC, Gilbert WC, Coleman RL, Lubarsky DA, Reves JG: Aging profoundly decreases anesthetic requirement. *Anesthesiology* 89:A825, 1998.
39. Gan TJ, Lubarsky DA, Sloan F, Dear R, Dear G: How much are patients willing to pay for a completely effective antiemetic? *Anesthesiology* 89:A7, 1998.
40. Sibert K, D'Ercole F, Gilbert W, Smith F, Lubarsky DA: Causes of OR delays: differing perceptions of anesthesiologists and OR nurses. *Anesth Analg* 84:S54, 1997.
41. Lubarsky DA: Understanding the term "cost-effectiveness." *J Clin Anes* 9:603-604, 1997.
42. Lubarsky DA: HMO contracts should cover variable costs too. *American Medical News*, November 10, Volume 40, Number 42, p. 22, 1997.

43. **Lubarsky DA:** Response to: Bailey PL, Egan TD: The successful implementation of pharmaceutical practice guidelines? Far from convincing! *Anesthesiology* 87:1583-1584, 1997.
44. **Lubarsky DA:** Response to: Eiley ET: Economic analysis of anesthetic drug use. *Anesthesiology* 87:1585-1586, 1997.
45. **Lubarsky DA:** Response to: Viby-Mogensen J: Implementation of pharmaceutical practice guidelines. *Anesthesiology* 87:1587, 1997.
46. **Lubarsky DA:** Sustaining cost savings through distribution control and individualized feedback. *Anesthesiology* 85:A969, 1996.
47. **Lubarsky DA, Gilbert W, Alexander ML, Sanderson I:** Validation of the programming of an anesthesia information management system for cost calculations. *Anesthesiology* 85:A1046, 1996.
48. **Slaughter TF, Gittleson S, Lineberger C, Inge W, Wildermann N, Green C, Greenberg CS, Lubarsky DA, Krucoff MW:** Continuous 12-lead ECG in patients undergoing peripheral revascularization: Incidence of ischemia and correlation with fibrinolytic activity. *Anesthesiology* 85:A72, 1996.
49. **Lubarsky DA, Gan TJ, Glass PSA, Dear GD, Mythen M, Dentz M, White WD, Pressley CC, Dufore SM, Sibert KS, Gilbert WC, Sanderson IC, Coleman R, Ginsberg B, Temo J, Ferrero-Conover D, Alexander ML, Reves JG:** PACU clinical outcomes and financial savings following a pharmaceutical cost containment program in anesthesia using practice guidelines. *Anesth Analg* 82:S285, 1996.
50. **King K, Dear G, Ginsberg B, Gilbert W, Lubarsky DA:** Cost analyses to develop practice guidelines for muscle relaxants. *Anesth Analg* 82:S233, 1996.
51. **Gan TJ, Lubarsky DA, Robertson K, Bennett D, Parrillo S, Sanderson I, Jhaveri R:** The hospital cost of perioperative transfusion of a unit of red blood cells and other blood products. *Anesth Analg* 82:S123, 1996.
52. **Sanderson IC, Gilbert WC, Lubarsky DA:** Cost containment using an automated anesthesia record keeper. *Anesth Analg* 82:S391, 1996.
53. **D'Ercole F, Gilbert W, Smith F, Lubarsky DA:** Programming an automated anesthesia record keeper to track operating room delays. *Anesthesiology* 85:A976, 1996.
54. **Gan TJ, Ginsberg B, Grichnik K, Sullivan F, Muir M, Lubarsky DA, Glass PSA:** The use of patient-controlled analgesia to compare the efficacy of sufentanil for postoperative analgesia and its relative potency to morphine. *Anesth Analg* 80(supple 2):S142, 1995.
55. **Gan TJ, Lubarsky DA, Robertson K, Bennett D, Parrillo S, Sanderson I, Jhaveri R:** The hospital cost of perioperative transfusion of a unit of red blood cells and other blood products. Presented at the Joint Congress on Liver Transplantation, London. Sept. 27-30, 1995.
56. **Gan TJ, Lubarsky DA, Robertson K, Gilbert WC, Grant AP, Reves JG, Clavien P:** Analysis of the variable intra-operative anesthesia costs of a liver transplant procedure. *Anesthesiology* 83:A1053, 1995.

57. Hertz CM, Pressley CC, Dufore SM, Glass PSA, Gan TJ, Lubarsky DA: Nausea and vomiting—a costly anesthetic complication? *Anesthesiology* 83:A1036, 1995.
58. Lubarsky DA, Smith LR, Glass PSA: A comparison of maintenance drug costs of isoflurane, desflurane, sevoflurane, and propofol with OR and PACU labor costs during a 60 minute outpatient procedure. *Anesthesiology* 83:A1035, 1995.
59. Sanderson IC, Gilbert W, Sibert K, Lubarsky DA: Evaluation of a program for calculating and plotting isoflurane utilization. *Anesthesiology* 83:A388, 1995.
60. Mault J, Cilley R, Lubarsky DA, Bartlett R, Reed L: Physiologic and mathematical modeling of the oxygen delivery-consumption relationship. *Crit Care Med* 22:A105, 1994.
61. Lubarsky DA, Hahn C, Bennett DH, Smith LR, Bredehoeft SJ, Klein HG, Reves JG: The hospital cost (1992) of a simple perioperative allogeneic red blood cell transfusion. *Anesth Analg* 78:S258, 1994.
62. Dentz ME, Lineberger CK, Gilbert W, Ginsberg B, Lubarsky DA: Postoperative complications following the use of etomidate for thoracic and vascular surgery. *South Med J* 87(suppl 2):S12, 1994.
63. Lubarsky DA, Smith LR, Sladen RN, Mault JR, Reed RL: Defining the relationship of oxygen delivery and consumption: use of biologic system models. *Anesthesiology* 79:A303, 1993.
64. Lubarsky DA, Kaufman BS: Changes in lactate levels with decreased oxygen delivery and oxygen consumption under anesthesia. *Anesth Analg* 68:S171, 1989.
65. Lubarsky DA, Kaufman BS, Sharnick S, Turndorf H: The effects of induction of anesthesia on mixed venous and peripheral venous oxygen saturations. *Anesth Analg* 13:S172, 1989.
66. Lubarsky DA, Kaufman BS: Oxygen delivery under anesthesia: a prospective evaluation of 330 ML/MIN/M2 as a "critical" value. *Anesth Analg* 68:S173, 1989.
67. Lubarsky DA, Piantadosi C, Camporesi E, Griebel J: Measurement of cytochrome aa3 redox potentials by NIR spectroscopy during normovolemic hemodilution. *Anesthesiology* 71:A550, 1989.
68. Lubarsky DA, Capan L, Turndorf H: Spinal anesthesia—determination of hemodynamics by bioimpedance technique. *Regional Anesthesia* 13:S37, 1988.
69. Lubarsky DA, Sharnick S, Feiler M, Kronenfeld M: The effect of ventilation on aortic blood gases during left ventricular ejection prior to separation from cardiopulmonary bypass. *Proceedings of the Society of Cardiovascular Anesthesiologists Annual Meeting*, 1988.

Video presentations and other private sector publications:

1. VIIA Satellite Network – Managing PONV: An Evidence-Based Update on Prevention and Treatment Program. November 2006. Activity made possible through an educational grant from Merck & Company.

2. Improving Outcomes Through Effective Management of PONV CD, Ed Source February 2005, Activity made possible through an unrestricted educational grant from Merck & Company.
3. Supportive Care for Surgical Patients: Confronting the Risks of PONV CD, PGA Annual meeting December 12 – 16, 2003, produced by Accel Healthcare Communications.
4. NMB video tape, October 12, 2003, produced by Abbott Pharmaceuticals.
5. "Permission to Be Pain Free™: Understanding Labor Epidurals," conceived, scripted and presented by David A. Lubarsky, Donald H. Penning, and Janice Henderson; produced as a joint venture between Duke University and The Informed Patient, LLC, © 1999.
6. Sevoflurane, PONV Anzemet & Zofran," (Product representative training video). Written and presented by David A. Lubarsky, produced by Abbott Video Services, September 4, 1998.
7. "The Niche for Etomidate in Current Anesthetic Practice" (2 part training tape series distributed to hospitals nationwide), produced by Abbott Laboratories, 1992.
8. "Anesthesia Insites: Midazolam," training video, scripting and appearance by David A. Lubarsky, produced by Roche Laboratories, 1992.
9. "Anesthesia Insites: Romazicon," training video, scripting and appearance by David A. Lubarsky, produced by Roche Laboratories, 1992.
10. "Clinical Uses of Esmolol: Sub-Section for Uses in Vascular Anesthesia" produced by Anaquest, Inc., 1989.
11. "Anesthesia Demands for Cardiac and Vascular Surgery. Part 1: Cardiac Surgery" by Dr. Lubarsky. BOC Health Care, 1989.
12. "Anesthesia Demands for Cardiac and Vascular Surgery. Part 2: Vascular Surgery" by Dr. Lubarsky. BOC Health Care, 1989.

Conference proceedings and newsletters:

1. Lubarsky, DA: New Paradigms in the Prevention of Postoperative nausea and Vomiting (PONV). Advisory board participant 59th Postgraduate Assembly in Anesthesiology (PGA), New York City, New York, December 9-13, 2005.
2. Lubarsky, DA: Being Part of a Multi-specialty Practice group is not a Good Financial Deal. American Society of Anesthesiologists newsletter September 2005 v. 69; 9.
3. Lubarsky, DA: Deriving Value from Informational Systems, New Thoughts on Using NSAIDS in Perioperative Pain Management and Post-Operative Nausea and Vomiting. 29th Annual Vail Conference in Anesthesiology, February 1-8, 2003.
4. Lubarsky, DA: Understanding PONV. Postgraduate Assembly 56th Meeting, December 6 – 10, 2002.

5. **Lubarsky, DA:** Main Causes of Delay in In-patient Discharge From PACU in a Major Teaching Hospital. American Society of Anesthesiologists Annual Meeting, October 12 – 16, 2002.
6. **Lubarsky DA:** Are computers useful to reduce costs in outpatient surgery? Society for Ambulatory Anesthesia (SAMBA) 15th Annual Meeting Syllabus, May 5-8, 2000.
7. **Lubarsky DA:** "Putting a Value on Pain, Suffering and Anxiety: Willingness-to-Pay Analyses"
"Pharmaceutical Practice Guidelines"; "Computerization in the OR: Electronic Medical Record" published in the syllabus of the Scott & White Symposium, 6th Annual National Meeting, Santa Fe, NM, June 22-24, 2000 (Scott & White Hospital, Temple, TX).
8. **Lubarsky DA, Reves JG:** Using Medicare multiples results in disproportionate reimbursement for anesthesiologists compared to other physicians. Association of Anesthesia Clinical Directors (AACD) 12th Annual Meeting Syllabus, October, 1999.
9. **Lubarsky DA:** Managing perioperative drug and labor costs. Proceedings of the Society of Cardiovascular Anesthesiologists 20th annual meeting, April 24–28, 1998.
10. **Lubarsky DA:** Managing perioperative drug and labor costs. Proceedings of the Association of Anesthesia Clinical Directors Workshop on Operating Room Management, March 21–22, 1998.
11. **Dexter F, Lubarsky DA:** Managing with information: using surgical services information systems to increase operating room utilization. American Society of Anesthesiologists Newsletter 62(10):6–8, 1998.
12. **Macario A, Lubarsky DA:** Why are hospitals enamored with clinical pathways? American Society of Anesthesiologists Newsletter 62(10):9–12, 1998.
13. **Lubarsky DA:** Intravenous anesthesia is too expensive for my practice! Proceedings of the Society for Intravenous Anesthesia annual meeting, October 16, 1998.
14. **Lubarsky DA:** Cost-effective ambulatory anesthesia: The anesthesiologist's view. In the Syllabus for the Society for Ambulatory Anesthesia (SAMBA) 12th Annual Meeting, Lake Buena Vista, FL, May 1–4, 1997.
15. **Lubarsky DA:** ICU care after vascular surgery (con). Proceedings of the Society of Cardiovascular Anesthesiologists 19th Annual Meeting, Baltimore, MD, May 11–14, 1997.
16. **Lubarsky DA:** Practice guidelines, information management and resource utilization: Buzzwords for the new millennium. Proceedings of the Association of Anesthesia Clinical Directors Annual Meeting, October 19, 1997.
17. **D'Ercole F, Lubarsky DA, Reves JG:** Duke's innovative programming of an automated anesthetic record yields information essential for economic management of anesthetic practice. North Carolina Society of Anesthesiologists Newsletter, October, 1996.
18. **Becker KE, Johnstone RE, Lubarsky DA:** Choice of anesthetic drugs and muscle relaxants. American Society of Anesthesiologists Newsletter 59(5):8–11, 1995.

19. Cohen NH, Lubarsky DA: Cost-effective use of technology in clinical care. American Society of Anesthesiologists Newsletter 59(8):20-22, 1995.

Electronic, world wide web, and/or internet publications:

1. Lubarsky DA (Chief Editor and Project Manager): Anesthesiology On-Line. (1000 Chapter Textbook in preparation for emedicine.com)
2. Commentary: 1997: The year in review. In AnesthesiaWeb, January, 1998.
3. Commentary: Notes from the SCA (Society of Cardiovascular Anesthesiologists) annual meeting. In AnesthesiaWeb, June, 1998.
4. Commentary: What was new at the ASA in Orlando. In AnesthesiaWeb, November, 1998.
5. Commentary: What I did on my fall vacation in San Diego. In AnesthesiaWeb, November 1997.

PROFESSIONAL

Funded research performed:

1. Picis 2005
\$36,00.00 unrestricted grant for research within the Center for Informatics and Perioperative Management (CIPM).
Role: Co-Principal Investigator with Dr. Michael Vigoda.
2. University of Miami Office of the Provost 2004
\$10,000 - Inter school development grant for development of a business school elective for senior medical students
Role: Co-Principal Investigator with Dr. Michael Vigoda.
3. Roche Labs 2002
\$ 50,000 educational grant for development/integration of palm pilot based algorithms in the treatment of PONV and preoperative vascular workups.
Role: Co-Principal Investigator with Dr. Thomas Powell.
4. Organon, Inc. 2000
\$36,000 for project entitled "A Multi-Center Trial to Evaluate the Interaction of Maintenance Doses of Rocuronium with an Intubating Dose of Rapacuronium, Rocuronium, or Succinylcholine."
Role: Co-Principal Investigators: with Dr. TJ Gan
5. Aspect Medical Systems, Inc. 1999

\$22,590 research agreement to support "Willingness to Pay for Avoidance of Awareness During General Anesthesia." Co-Principal Investigators: with Dr. TJ Gan.

6. Abbott Labs 1999-2001
\$250,000 educational grant to direct AnesthesiaWeb.com
Role: Dr. Lubarsky, Director and Chair, Editorial Board
7. Roche Laboratories 1996 - 1999
\$100,000 grant x 3 years to the Department of Anesthesiology to administer and direct AnesthesiaWeb.com: An Educational Resource for Anesthesia Providers.
Role: Dr. Lubarsky, Director, Founder and Chair, Editorial Board.
8. North American Dräger 1998 - 2001
\$535,000 to \$1.5 million contract to develop an Anesthesia Information Management System (AIMS) for Duke University Medical Center and Health System.
Role: Co-Principal Investigators with Dr. Iain Sanderson
9. Roche 1996
\$45,000 unrestricted research grant in support of Database Use in Outcomes Research, used to fund "The successful implementation of pharmaceutical practice guidelines: Analysis of associated outcomes and cost savings"
Role: Principal Investigator,
10. Glaxo-Wellcome 1996 - 1997
\$25,000 project grant for "How Much are Patients Willing to Pay to Avoid Postoperative Nausea and Vomiting"
Role: Principal Investigator
11. Abbott Laboratories 1992 - 1993
\$35,000 research grant to develop an etomidate study
Role: Principal Investigator
12. Sanofi Winthrop Pharmaceuticals 1993
\$10,000 research grant for the study "Comparison of Amrinone versus Nitroprusside for Hemodynamic Control and Support During Infraarenal Aortic Clamping for Abdominal Aortic Aneurysm Repair".
Role: Principal Investigator
13. Somatogen 1992
\$13,500 unrestricted research grant to study the cost of perioperative transfusions
Role: Principal Investigator

Professional organizations:

- American Society of Anesthesiologists, 1988 - Present
- American Medical Association, 1988 - Present
- Association of University Anesthesiologists, 2000 - Present
- International Anesthesia Research Society, 1988 - Present
- Florida Society of Anesthesiologists, 2002 - Present

- North Carolina Society of Anesthesiologists, 1988 – 2002
- Society of Cardiovascular Anesthesia, 1991 – Present

Recent international engagements:

- Invited Speaker - Beta Blockers in Non-Cardiac Surgery: Who, What, When and Why. 20th International Congress of the Israel Society of Anesthesiologists, Tel-Aviv, Israel. September 26 – 29, 2005.
- Featured Speaker - Japanese Society of Anesthesiology, May 2004, Nagoya, Japan.
- Kagoshima University School of Medicine, Department of Anesthesiology & Critical Care, Kagoshima, Japan, May 23 – 29, 2004.
- Commissioned Training in Anaesthesiology 2002/03, Pamela Youde Nethersole Eastern Hospital, Hong Kong [by Dr. Wallace Chiu (wkychiu@ha.org.hk), Chairman, Training Subcommittee in Anaesthesiology, Hospital Authority, Hong Kong] – January 2003
 - Valuing Health Care in 2002
 - Using Information Technology in Medicine – Near Future or False hope?
- Valuing Healthcare lecture XXXIIth International Meeting of Anesthesiology and Critical Care, March 18 & 19, 2000, in Paris, France, Prof. Pierre Coriat, organizer Journées D'Enseignement Post Universitaire (JEPU) (Anesthesiology and Critical Care Conference), Paris, France, March 17-23, 2000. Invited by Dr. Pierre Coriat. Lectures: “Est-on prêt à payer la prise en charge de la douleur et de l'anxiété postopératoires?” or “Putting a value on pain, suffering and anxiety: willingness to pay?” and “Gestion informatisée des coûts des agents d'anesthésie” or “Managing perioperative drug costs using informatics.”

National/state presentations, conferences, speaking and other panel engagements:

Southern University Department of Anesthesiology Chairs (SUDAC) Meeting, Meeting Moderator, Administrative Round Table Discussion. April 13 – April 15, 2007.

Management of PONV. Presentation at the Western Pennsylvania Hospital , Fourth Annual Arizona Anesthesia Adventure, Phoenix, Arizona, March 2 – 5, 2007.

Anesthesia for AAA. Presentation at the Western Pennsylvania Hospital , Fourth Annual Arizona Anesthesia Adventure, Phoenix, Arizona, March 2 – 5, 2007.

Anesthesia for Endovascular Procedures. Presentation at the Western Pennsylvania Hospital , Fourth Annual Arizona Anesthesia Adventure, Phoenix, Arizona, March 2 – 5, 2007.

Negotiations 101: Terminology and Preparation. Presentation at the Western Pennsylvania Hospital , Fourth Annual Arizona Anesthesia Adventure, Phoenix, Arizona, March 2 – 5, 2007.

Neuromuscular Blockers. Presentation at the Western Pennsylvania Hospital , Fourth Annual Arizona Anesthesia Adventure, Phoenix, Arizona, March 2 – 5, 2007.

Understanding the cost and consequences of PONV. Faculty speaker for a satellite symposium to be held during the 60th Postgraduate Assembly in Anesthesiology (PGA), New York City, New York, December 8-10, 2006.

Postoperative Nausea and Vomiting lecture given at the Dallas Society of Anesthesiologists Annual Meeting in Dallas, TX, September 19 – 20, 2006.

The Academic Pain Practice: Can It Survive? Panel Presentation at the ASA Annual Meeting in Chicago, October 2006.

Abdominal Aortic Surgery Including Endovascular. Refresher Course Presentation at the ASA Annual Meeting in Chicago, October 2006.

Education, Economics and Evolution of Cardiovascular Anesthesia. Luncheon Panel Presentation at the ASA Annual Meeting in Chicago, October 2006.

Pharmacoeconomics and Evidence Based Practice: Dispelling Practice Myths and Urban Legends. Panel Presentation at the ASA Annual Meeting in Chicago, October 2006.

Resident Research Forum Presentation at the ASA Annual Meeting in Chicago, October 2006.

Course Director of the Western Pennsylvania Hospital's 3rd Annual Arizona Adventure Conference, Phoenix, Arizona, March 26 – 30, 2006.

Aligning Incentives. Association of Anesthesia Clinical Directors (AACD) Workshop on Operating Room Management, March 10 - 12, 2006.

How to Get What You Want: The Art of Negotiation. Association of Anesthesia Clinical Directors (AACD) Workshop on Operating Room Management, March 10 – 12, 2006.

Southern University Department of Anesthesiology Chairs (SUDAC) Meeting, Guest Faculty, Negotiating with hospitals. March 31 – April 2, 2006.

Arizona Society of Anesthesiologists 32nd Annual Scientific Meeting, Guest Faculty, Finding Value in IT: Near Future or False Hope? February 17 – 19, 2006.

Arizona Society of Anesthesiologists 32nd Annual Scientific Meeting, Guest Faculty, Preventing PONV. February 17 – 19, 2006.

Arizona Society of Anesthesiologists 32nd Annual Scientific Meeting, Guest Faculty, Perioperative Management of the Patient Undergoing Abdominal Aortic Surgery. February 17 – 19, 2006.

SAAC/AAPD. Annual Meeting, session moderator on Training the Anesthesiologist of the Future. Saturday, November 5, 2005.

American Society of Anesthesiologists. Annual Meeting, Refresher Course on Perioperative Management of the Patient Undergoing Abdominal Aortic Surgery. October 22, 2005

American Society of Anesthesiologists, Annual Meeting, Clinical Forum on Cardiac Consult/Revascularization? Or Just beta-Blocker? October 25, 2005

American Society of Anesthesiologists, Annual Meeting, panel on Pharmaceuticals, Economics and Anesthesia Practice (The Use of Practice Guidelines to Minimize Drug Costs.) October 26, 2004.

American Society of Anesthesiologists, Annual Meeting, panel on Academic Anesthesiology Training Programs – Should you Secede from the Medical School to Better Meet your Academic and Clinical Missions? (Pro: You Should Secede!) October 26, 2004

American Society of Anesthesiologists, Annual Meeting, panel on Practice Management, Oct 14, 2003.

Michigan State Society of Anesthesiologists, April 26, 2003. “Cox-2 Inhibitors: Periprocedural Pain Control and Thoughts on Central Sensitization.”

New York State Society of Anesthesiologists, Post Graduate Assembly, panel on the Future of Economics and Anesthesia, Dec 2002.

Panel Chair, Supporting Surgical Outcomes, dinner meeting at PGA, Dec 2002. Presentation, “The Value of PONV therapy.”

Medical University of South Carolina Continuing Education Weekend, Charleston, SC, May 4-6, 2001. Lecture: “Current Concepts in Neuromuscular Blockade.”

Kansas University Medical Center 51st Annual Postgraduate Symposium on Anesthesiology, Kansas City, Missouri, April 6-8, 2001. Lectures: “Where is the Value in IT?” and “Valuing Healthcare: New Approaches to Costs and Outcomes.”

Committee Chair, Drug Information Association workshop in collaboration with the Duke Clinical Research Institute, “Internet Health Information Programs: Integrating Vision and Basic Business Principles,” Durham, NC, April 3-4, 2000. Dr. Lubarsky, Program Committee with and Kevin A. Schulman, M.D., M.B.A. (Program Chairperson). Moderator of panel, Specialist content sites. Lecture: “Healthcare Internet Business Models that Work.”

Southern University Department of Anesthesia Chairs (SUDAC), Annual Meeting, Charleston, South Carolina, March 23-25, 2001. Lecture and discussion: “Departmental Practice Plans.”

International Anesthesia Research Society 75th Clinical and Scientific Congress, Ft. Lauderdale, Florida, March 16-20, 2001. Lecture: “Valuing Health Care: New Approaches to Costs and Outcomes.”

Society for Technology in Anesthesia, “STA 2001: An Information Odyssey,” Scottsdale, Arizona, January 10-13, 2001. Coordinator of Panel: “Who is the Information Consumer? User Perspectives on Anesthesia Information,” and Lecture “Understanding Value Creation from Information Systems Elucidates Consumers of That Information”

The University of Chicago Department of Anesthesia & Critical Care 14th Annual Conference, “Challenges for Clinicians in the New Millennium,” Chicago, Illinois, December 1-3, 2000.

Presentations: "Willingness to Pay: Valuing Pain, Suffering & Anxiety in Health Care" and "Understanding the Business of E-Health."

American Society of Anesthesiologists Annual Meeting, San Francisco, CA, October 15-18, 2000. Foundation for Anesthesia Education and Research (FAER) panel on "Information Overload: Data Analysis from Genes to Populations." Lubarsky's presentation: "Clinical Data: Outcomes, Cost and Quality"

Greater Atlanta Society of Anesthesiologists, New Concepts in Neuromuscular Blockade, September 14, 2000

Scott & White Symposium, 6th Annual National Meeting, Santa Fe, NM, June 22-24, 2000.

Presentations:

"Putting a Value on Pain, Suffering and Anxiety: Willingness-to-Pay Analyses"

"Pharmaceutical Practice Guidelines"

"Computerization in the OR: Electronic Medical Record"

Society for Ambulatory Anesthesia (SAMBA) Annual Meeting, Washington, DC May 5-8, 2000.

Participated on the panel "Managing the Costs of Ambulatory Anesthesia" moderated by Alex Macario, M.D., M.B.A. Presentation: "Are Computers Useful to Reduce Costs in Outpatient Surgery?"

Participated on the panel "Life After Residency" moderated by Peter S.A. Glass, M.B., Ch.B. Presentation: "Managing Your Money."

Committee Chair, Drug Information Association workshop in collaboration with the Duke Clinical Research Institute, Durham, NC, April 3-4, 2000: "Internet Health Information Programs: Overview and Market Opportunities." Dr. Lubarsky, Program Committee with Dr. Robert Califf, Robert Taber, Ph.D., and Kevin A. Schulman, M.D., M.B.A. (Program Chairperson)

New York State Society of Anesthesiologists 53rd Annual Post-Graduate Assembly, New York, NY. Participated on the panel: "The Year 2000: How Computers Will Improve Anesthesia," December 12, 1999. Presentation: "Anesthesia Information Management: Economic Implications."

American Society of Anesthesiologists Annual Meeting, Dallas, TX, October 12, 1999. Panel: "Practice Management/Compliance Coding—What They Didn't Teach Us in Medical School," Peter B. Kane, M.D., Moderator. Presentation: "Income Redistribution: The Politics of Communism in the OR"

American Society of Anesthesiologists Annual Meeting, Dallas, TX, October 12, 1999. Panel on Value-Based Anesthesia, Peter Rock, Panel Moderator. Presentation: "Quality Improvement and Identification of Key Indicators: Are Electronic Record Keepers the Answer?"

Association of Anesthesia Clinical Directors 12th Annual Meeting, October 10, 1999. Abstract presentation: "Using Medicare multiples results in disproportionate reimbursement for anesthesiologists compared to other physicians."

New York State Society of Anesthesiologists 52nd Annual Post-Graduate Assembly, New York, NY. Participated on the "Fraud and Abuse" panel (Current Issues Forum) December 13, 1998. Presentation: "Making the Plan Work: How to Get Doctors to Do What They Don't Want to Do."

Value-Based Anesthesia Care Committee Panel discussion, (a committee of the American Society of Anesthesiologists), Orlando, FL, October 21, 1998. Presentation: "Anesthesia Practice Management: Practice Guideline and Clinical Pathway Development."

Association of Anesthesia Clinical Directors Panel "Practical Approaches to OR Management" at the American Society of Anesthesiologists annual meeting, Orlando, FL, October 19, 1998. Presentation: "Maximizing Use of an Anesthesia Information Management System in 1998—What's New, What's Left to Do, and Is It for YOU?"

Society for Intravenous Anesthesia (SIVA) Annual Meeting, Orlando, FL, October 16, 1998. Lecture: "Is Intravenous Anesthesia Too Expensive for My Practice?"

Society of Cardiovascular Anesthesiologists (SCA) Workshop on Perioperative Cost Management and Contract Negotiation in Cardiac Surgery, Seattle, WA, April 25, 1998. Lecture: "Managing Drug Costs in the Perioperative Period" and leading a breakout session "Managing Labor Costs in the Perioperative Period." April 27, 1998: Breakfast panel with Dr. Robert Johnstone: "Economics and the Cardiovascular Anesthesiologist."

Association of Anesthesia Clinical Directors workshop on operating room management, Phoenix, AZ, March 20–22, 1998. (Invited by Dr. William Mazzei, University of California-San Diego) Lecture: "Real World Cost Reduction."

Nashville Society of Anesthesiologists, Nashville, TN, September 25, 1997.

Pittsburgh Symposium for Nurse Anesthetists, Pittsburgh, PA, September 27, 1997.

International Anesthesia Research Society annual meeting, San Francisco, CA, March 14–18, 1997. "Anesthesia Information Management: Where Are We?" presented by J.G. Reves, M.D., Thomas E. Stanley, M.D. and the Duke Anesthesia Section on Information Systems (Dr. Lubarsky, member).

Society of Cardiovascular Anesthesiologists 19th annual meeting, Baltimore, MD, May 11–14, 1997. (Invited by Steven Frank, M.D. and Jan C. Horrow, M.D., Chair, Scientific Program Committee) Presentation: "ICU Care After Vascular Surgery (Con)."

American Association of Anesthesia Assistants national meeting, Kiawah Island, SC, May 16–18, 1997. Lectures: "The Clinical Use of Sevoflurane" and "The Niche for Etomidate in Current Anesthetic Practice."

American Society of Anesthesiologists Bi-District Meeting, New Orleans, LA, May 23–25, 1997. (Invited by Donald Harmon, M.D. of the Ochsner Hospital) Lecture: "Cost Containment in Anesthesia."

Association of Anesthesia Clinical Directors annual meeting, San Diego, CA, October 19, 1997. (Invited by Barbara DeRiso, M.D., Director of the AACD) Keynote address: "Practice Guidelines, Information Management and Resource Utilization—Buzzwords for the New Millennium."

NC Society of Anesthesiologists 1996 Annual Fall Meeting in Myrtle Beach, SC, September 20–22, 1996. Lecture: “Value Based Anesthesia: The Academic Experience.”

Scott & White Memorial Hospital 5th Annual Anesthesia Update/Resident Research Day, Temple, TX, April 13, 1996. (Invited by Charles McLeskey, M.D.) Lectures: “Pharmaceutical Practice Guidelines” and “Management Controversies for the Patient at Risk for Myocardial Ischemia Undergoing Non-cardiac Surgery.” After dinner keynote address: “Economics vs. Hypocrites.”

American Society of Anesthesiologists annual meeting, Washington, DC, March 9–13, 1996. Poster presentation: “PACU Clinical Outcomes and Financial Savings Following a Pharmaceutical Cost Containment Program in Anesthesia Using Practice Guidelines.” Association of University Anesthesiologists Satellite Symposium on Outcomes Research, Chatham, MA, May 19–21, 1996. Poster presentation: “Pharmaceutical Practice Guidelines in Anesthesia: Implementation, Cost Savings and Outcome”

American Society of Anesthesiologists annual meeting, Memorial Convention Center, New Orleans, LA, October 19–23, 1996. Poster Presentation: “Sustaining Cost Savings Through Distribution Control and Individualized Feedback.” Poster-Discussion Presentation: “Validation of the Programming of an Anesthesia Information Management System For Cost Calculations.”

Society for Intravenous Anesthesia Fourth Annual Meeting, October 20, 1995. Topic: “Does Fast Track Recovery Have Limitless Possibilities?”

Southern University Department of Anesthesia Chairmen (SUDAC) 1995 Annual Meeting, Washington Duke Inn, Durham, NC, April 6–7, 1995. Lecture: “Cost Savings for Hospital and Department—The Duke Plan.”

Dallas County Anesthesia Society, Dallas, TX, September 21, 1995.

Tejas Anesthesia, San Antonio, TX, December 7, 1995.

Greater Atlanta Society of Anesthesiologists, Atlanta, GA, November 17, 1994.

Society of Cardiovascular Anesthesiologists Breakfast Panel at the American Society of Anesthesiologists annual meeting, October 17, 1994. Topic on hemodilution: “Will It Work? How Much Will It Cost?”

First National Duke Heart Center Conference—“Shaping the Future: Innovations in Technology, Quality, and Caring” September 22–24, 1994. Presentation: “Patients at Risk for Ischemia Going to the Operating Room for Non-Cardiac Surgery: Management Controversies”

American Society of Anesthesiologists Annual Meeting, Washington, DC, October 9–13, 1993. Poster presentation: “Defining the relationship of oxygen delivery and consumption: use of biologic system models.”

American Society of Anesthesiologists Annual Meeting, New Orleans, LA, October 14–18, 1989. Poster presentation: “Measurement of cytochrome aa3 redox potentials by NIR spectroscopy during normovolemic hemodilution.”

Visiting professorships, 2007:

Paoli Hospital, Department of Anesthesiology, Paoli, Pennsylvania, April 26, 2007

Visiting professorships, 2006:

University of Cincinnati College of Medicine, Department of Anesthesiology, Cincinnati, Ohio,
November 15 -16

Visiting professorships, 2005:

Oklahoma University Health Science Center, Department of Anesthesiology, Oklahoma City,
OK, December 15 – 16

Brookwood Medical Center, Department of Anesthesiology, Birmingham, AL, December 5 – 6

Carraway Methodist Hospital, Department of Anesthesiology, Birmingham, AL, December 5 -6

CMC Hospital, Department of Anesthesiology, Charlotte, NC, November 9 – 10

University of Kansas, Department of Anesthesiology, Wichita, Kansas, April 11 – 13

Visiting professorships, 2004:

Brigham & Women's Hospital, Department of Anesthesiology, Boston, MA, October 12

Mount Sinai School of Medicine, Department of Anesthesiology, New York, New York, October
5-7

John Hopkins University, Department of Anesthesiology, Baltimore, MD, August 26 – 27

Greater Baltimore Medical Center, Department of Anesthesiology, Baltimore, MD, August 26 -
27

Kagoshima University School of Medicine, Department of Anesthesiology & Critical Care,
Kagoshima, Japan, May 23 – 29

Christiana Hospital, Department of Anesthesiology, Newark, DE, May 11 -12

Visiting professorships, 2003:

Medical College of Georgia, Department of Orthopedics, Macon, Georgia, October 7-8

Hong Kong College of Anesthesiology – lectured at all hospitals in Hong Kong. Hosted by Dr. Wallace Chiu, Pamela Youde Nethersole Eastern Hospital, Department of Anesthesiology, Hong Kong, China, January 6-10

Visiting professorships, 2002:

Washington University, Department of Anesthesiology, St. Louis, Missouri, November 5-6
Baylor University Medical Center, Dallas, Texas, May 21-22 (Grand Rounds: "NMB Update-Re-examining Succinylcholine and it's Alternatives")
University of Wisconsin, Department of Anesthesiology, Madison, Wisconsin, April 2-3

Visiting professorships, 2001:

State University of New York (SUNY) at Stony Brook, Long Island, NY, June 7-8 (Resident lecture: "Understanding Cost Concepts in the Literature" Grand Rounds: "Valuing Health Care: New Approaches to Costs and Outcomes")
University of Miami Medical Center, Department of Anesthesiology, Miami, FL, June 7
Christiana Hospital, Newark, DE, May 30
Peninsula Regional Medical Center, Salisbury, MD, May 29
St. Francis Hospital, Greenville, SC, April 30
University of Texas-Southwestern Medical Center Department of Anesthesiology, Dallas, TX, March 15-16 (Faculty lecture: "What Are Patients Willing to Pay?" Resident lecture: "What Are They Willing to Do About Nausea?")
Atlanta Medical Center Department of Anesthesiology, Atlanta, GA, February 14
Baptist Hospital Anesthesia Group, Pensacola, FL, January 31
Roper and St. Francis Hospitals, Charleston, South Carolina, January 18

Visiting professorships, 2000:

Crawford Long Hospital, Department of Anesthesiology, Atlanta, GA, November 15
St. Luke's-Roosevelt Hospital, Department of Anesthesiology, New York, NY, November 7.
Christiana Hospital and Health System, Department of Anesthesiology, Newark, DE, May 3.
William Beaumont Hospital, Department of Anesthesiology, Royal Oak, MI, April 12.

Visiting professorships, 1999:

University of Texas-Southwestern Medical Center, Parkland Memorial Hospital, Department of Anesthesiology, April 28, 1999.

University of South Florida, Department of Anesthesiology, Tampa General Hospital, Tampa, FL, April 22, 1999.

Visiting Professor, Department of Anesthesiology, Loma Linda University, Loma Linda, CA, January 27, 1999.

Washington Hospital System, Anesthesiology Department, Washington, DC, January 19, 1999.

Rex Hospital, Department of Anesthesiology, Raleigh, NC, June 3, 1999.

Jackson Memorial Hospital, Department of Oral and Maxillofacial Surgery, Miami, FL, March 11, 1999.

Forsyth Memorial Hospital, Anesthesia Department, Winston-Salem, NC, February 11, 1999.

The Scripps System, Anesthesia Department, San Diego, CA, January 27, 1999

Visiting professorships, 1998

St. Joseph's Hospital System, Anesthesia Department, Albuquerque, NM, November 11, 1998.

University of Michigan, Department of Anesthesiology, Ann Arbor, MI, February 25-26:
"Relational Databases, Benchmarking, Practice Guidelines and Other Buzzwords of the New Millennium" and "Management Controversies for the Cardiac Patient Undergoing Non-Cardiac Surgery"

St. Anthony Hospital, Denver, CO, September 28, 1998.

Olean General Hospital, Jamestown, NY, September 16, 1998.

St. Vincent's Medical Center in Worcester, MA, May 20, 1998.

Visiting professorships, 1997

Visiting Professor, Stanford University Medical Center, Department of Anesthesia, Stanford, CA, December 3-4, 1997. (Alex Macario, M.D., M.B.A., host) Wednesday Grand Rounds lecture: "Relational Databases, Benchmarking, Practice Guidelines and Other Buzzwords of the New Millennium." Thursday afternoon case discussion and evening case discussion with Drs. Vitez, Navarro, Scibetta, Diachun of the Stanford faculty Health Policies Fellowship.

Fletcher Allen Health Care, M.C.H.V. Campus, Burlington, VT, November 20, 1997.

Visiting Professor, New York University Medical Center, Department of Anesthesiology, New York, NY, November 18-19, 1997. (Invited by Herman Turndorf, M.D., Chair) Guest Speaker at Morbidity & Mortality Grand Rounds. Lectured on Wednesday morning: "Relational Databases, Benchmarking, Practice Guidelines and Other Buzzwords of the New Millennium."

Newark Beth Israel Hospital, Newark, NJ, April 7, 1997.

Hackensack University Medical Center, Hackensack, NJ, April 8, 1997.

Hartford Hospital, Hartford, CT, September 4, 1997.

Rhode Island Hospital, Providence, RI, October 8, 1997.

Abbott Northwestern Medical Center, Minneapolis, MN, November 11, 1997.

Visiting Professor, Medical College of Georgia, Department of Anesthesiology, Augusta, GA, November 12, 1997. Conference presentation: "Relational Databases, Benchmarking, Practice Guidelines and Other Buzzwords of the New Millennium." Case presentation.

Doctors of the Medical Center of Columbus, St. Francis and Doctor's Hospitals, Columbus, GA, November 13, 1997.

Keynote speaker at the program "New Advances in Anesthesia," Methodist Hospital, St. Louis Park, MN, November 10, 1997.

Visiting professorships, 1996

Athens Regional and Saint Mary's Hospitals, joint Grand Rounds, Athens, GA, January 18, 1996.

Visiting Professor, Vanderbilt University Department of Anesthesiology, Nashville, TN, February 22, 1996. (Invited by Charles Beattie, M.D., Ph.D., Chairman) Facilitated a multi-departmental task force meeting. Subject: "Expense Reduction—Anesthesia Drugs." Lecture: "Pharmacoeconomics in Anesthesia."

Piedmont Hospital, Atlanta, GA, March 27, 1996.

Tampa General Hospital, Tampa, FL, May 9, 1996.

Richland Memorial Hospital, Columbia, SC, May 16, 1996.

St. Louis University Department of Anesthesiology, St. Louis, MO, August 14, 1996.

The Medical Center of Central Georgia, Macon, GA, August 22, 1996.

Visiting Professor, University of Alabama—Birmingham, Department of Anesthesiology, Birmingham, AL, September 16, 1996. Lectures: "Value Based Anesthesia: The Academic Experience" and "Management Controversies for Cardiac Patients Undergoing Non-cardiac Surgery"

St. John's Hospital, Queens, NY, September 30, 1996.

Addressed regional gathering of anesthesiologists, Ritz-Carlton Hotel, Boston, MA, May 19, 1996.

Addressed regional gathering of anesthesiologists, The Plaza Hotel, New York, NY, June 9, 1996.

Addressed regional gathering of anesthesiologists, Baltimore, MD, June 30, 1996.

American Association of Nurse Anesthetists national meeting to discuss practice and reimbursement issues when CRNAs and anesthesiologists are working together, Rosemont, IL, September 12, 1996

Visiting professorships, 1995

Baylor University Medical Center, Dallas, TX, September 20, 1995.

Mercy Hospital, Pittsburgh, PA, November 1, 1995.

Visiting Professor, University of Medicine and Dentistry of New Jersey, Robert Wood Johnson Medical School, New Brunswick, NJ, November 8, 1995. Lecture: "Management Controversies for the Patient at Risk for Myocardial Ischemia Undergoing Non-cardiac Surgery"

Visiting professorships, 1994

Deaconess Hospital, Boston, MA

Maine Medical Center, Department of Anesthesiology, Portland, ME, August 4, 1994.

Bronx-Lebanon Hospital Center, Department of Anesthesiology, Bronx, NY, November 30, 1994.

Visiting professorships, 1993

New York University Medical Center, New York, NY

Massachusetts General Hospital, Cardiac Division, Boston, MA

University of Medicine and Dentistry of New Jersey, Newark, NJ

Wake Medical Center, Raleigh, NC

Saint Barnabas Hospital, Livingston, NJ

Sutter Hospital, Sacramento, CA

Christiana Hospital, Wilmington, DE

Brandywine Regional Medical Center, Coatesville, PA

Englewood Hospital, Englewood, NJ

Non-physician presentations, 2001

Draeger Global Management Team Meeting, at the R. David Thomas Center of the Fuqua School of Business, Duke University, February 1, 2001. Presentation: "The Value of Information Technology."

Chair, Roche Pharmaceuticals, Advisory panel on PONV, Miami FL Dec 2001. "Understanding the pharmacoeconomics of PONV agents"

Pain Management Advisory Board, Pfizer/Pharmacia

Non-physician presentations, 2000

Chair, Pharmacoeconomic Council on Neuromuscular Blocking Agents Retreat, Organon, Inc., St. Thomas, VI, May 19-21, 2000

Remifentanyl Advisory Board, Abbott Laboratories, Chicago, IL, May 12-13

Vertebrae Medical Advisory Board (an Internet company to support web-medicine), Westchester, NY, May 12

Cox-II/Parecoxib – U.S. Health Outcomes Advisory Group Meeting, Searle, Chicago, IL, April 24-25

Dexmedetomidine Advisory Panel, Abbott Laboratories, Aventura, FL, March 3-5

Trainer, Abbott Laboratories Perioperative Services Meeting, Dallas, TX, February 6

AnesthesiaWeb Position Strategy Meeting, New York, NY, January 12.

Other presentations, 1998

“The Impact of Inhalation Agents on Global Cost,” Cog Hill Golf and Country Club, Lemont, IL, September 4, 1998.

Addressed the North American Dräger national sales meeting, Philadelphia, PA, March 29, 1998. Lecture: “Anesthesia Information Systems of the New Millennium.”

Addressed the Abbott Laboratories national sales training meeting, Ft. Lauderdale, FL, February 3, 1998. Lecture: “The Economics of Postoperative Nausea and Vomiting.”

Non-physician presentations, 1997

Addressed Abbott Laboratories national product development group, Chicago, IL, March 24, 1997. Lectures: “Types of Studies to Determine Cost Justification” and “Economic Trends and Issues in Health Care Related to Anesthesia.”

Addressed Abbott Laboratories national sales training meeting, Chicago, IL, July 27–30, 1998. Lectures: “Clinical Implications of Package Insert Changes” and “Cost Perspectives: Low Flow Sevoflurane.”

Non-physician presentations, 1996

Panama City, FL, March 6, 1996.

Addressed the Amidate® (etomidate) Advisory Board of Abbott Laboratories, meeting in Washington, DC, March 8, 1996. Lecture: “General Cost Concepts and Cost Justification for Etomidate”

Addressed the Abbott Laboratories Sevoflurane Speakers Development Meeting, Hotel Sofitel, Rosemont, IL, May 17–18, 1996. Lecture: “The Cost Justification for Sevoflurane.”

Other presentations, 1994

Lectured at the Osler Anesthesiology Review Course, Ft. Lauderdale, FL, February 14-15, 1994. Lectures: "Trauma," "How to Take the Written Boards," "How to Take the Oral Boards," "Anesthesia for Carotid Endarterectomy," "A Comparison of Induction Agents," "Management Controversies," "Answering Strategies for the Oral Boards".

Other presentations, 1993

Lectured at the Osler Anesthesiology Review Course, Chicago, IL, August 9-14, 1993. Lectures: "Recovery Room," "Answering Strategies for the Board Exams," "The Induction Agent for the Boards," "Carotid Endarterectomy," "Pre-operative Evaluation I," "How to Take Board Exams," and "Pre-operative Evaluation II."

Lectured at the Osler Anesthesiology Review Course, Tampa, FL, January, 1993. Lecture: "How to Take the Oral Board Exam."

Editorial and review board positions:

1. Co - Editor-in-chief of Anesthesiology , the electronic anesthesia textbook on emedicine.com. Under construction.
2. AnesthesiaWeb, a World Wide Web site developed for the anesthesia community (accumulated 16,000 subscribers, the largest anesthesia e-magazine in the world), Chair, Editorial Board, October 1996-2002.
3. Journal of Clinical Anesthesia, Section Editor, Cost Containment and Operations Improvement, 1995-present.
4. Lubarsky, DA: Abstract Reviewer on Economics, Education and Patient Safety. 77th and 78th Annual IARS Congress, March 27 - 31, 2004
5. Journal of Clinical Monitoring and Computing, Section Editor, Information Systems, 1999-2002
6. Anesthesiology, Guest Reviewer, 1996-present.
7. Anesthesia and Analgesia, Guest Reviewer, 1991-present.
8. Cardiovascular and Thoracic Anesthesia Journal Club Journal - Section Editor, Vascular Anesthesia, 1996-1999.
9. Anesthesia Cost Containment bulletin board on the Internet, Coordinator and Initiator, 1995.
10. TranspO2rt. Contributing Editor, 1993-1994.
11. Butterworths Publishing Company. Boston. Guest Reviewer of anesthesia texts, 1991-93.

TEACHING

Awards:

- Medical Student "Teacher of the Year" Award, 1990.
- Fuqua Scholar Award, 1999.

Teaching specialization:

- Mentor to cost effective care clerkship
- Annual advisee to multiple residents

Lectures for Fuqua School of Business Course "Informatics, the internet, and healthcare"
Fall 2000, Term 1 (Course repeated with update Fall 2001, Term 1)

- "Informatics, The Internet and Healthcare: Introduction and Overview," August 28
- "IT Development and Value," "EMR Ideals and Recap," "Functionality of Other HIS," August 31
- "Resource Utilization Control Using Informatics Systems," September 4
- "The Medicalologic Business Model – ROI for EMR," Sept. 7
- "Introduction to The Internet," and B2B business exchanges September 11
- "MD2MD Texts, Journals, CME and Intellectual Property," September 14
- "The Regulatory Environment," September 18
- "Content Sites," Sept 21
- "Medical Care Over the Internet," Sept 28

Spring 2001, Term 3

- "Operations Management Seminar, Department of Operations: Healthcare and Management Science," March 5

University Lectures

University of Miami – School of Medicine Educational Lectures 2002

Duke University Medical Center Educational Lecture, 2001

- Resident Lecture: "How to Value Health Care."
- Medical Student 2nd year Medical Practice in Health Systems (MPS 206C.82) Lectures, "Understanding Cost Concepts in the Literature."

Duke University Medical Center Educational Lectures, 2000

- Resident Lecture: "Management Controversies for the Patient At-Risk for Myocardial Ischemia Undergoing Non-Cardiac Surgery."
- Medical Student 2nd year Medical Practice in Health Systems (MPS 206C.82) Lectures, "Understanding Cost Concepts in the Literature."

Duke University Medical Center Educational Lectures, 1999

- Anesthesiology Resident Lecture, "Contracts, Reimbursement, and Compliance Issues"
- CA-1 Resident Orientation Lecture, "PACU Issues and Transport"
- Medical Student 2nd year Medical Practice in Health Systems (MPS 206C.82) Lectures, "Understanding Cost Concepts in the Literature."

Duke University Medical Center Educational Lectures, 1998

- Medical Student 2nd year Medical Practice Health Systems Lecture, "Understanding Cost Concepts in the Literature"
- CA-1 Resident Orientation Lecture, "PACU Issues and Transport"
- Resident Lecture, "Preparing for the Oral Boards"
- Medical Student 2nd year Medical Practice Health Systems Lecture, "Understanding Cost Concepts in the Literature"
- Resident and Residency Graduate All-day Seminar, "Preparing for the Anesthesia Orals"

Duke University Medical Center Educational Lectures, 1997

- Grand Rounds, "Relational Databases, Benchmarking, Practice Guidelines and Other Buzzwords of the New Millennium"
- Anesthesiology Resident Lecture, "Understanding Cost Concepts in the Literature: Part 2"
- Medical Student 2nd year Medical Practice Health Systems Lecture, "Understanding Cost Concepts in the Literature"
- Anesthesiology Resident Lecture, "Understanding Cost Concepts in the Literature: Part 1"
- Resident Lecture, "Controversies in Care of the Patient with Coronary Artery Disease for Non-cardiac Surgery"
- Resident and Residency Graduate Weekend Seminar, "Preparing for the Anesthesia Orals"
- Medical Student 2nd year Medical Practice Health Systems Course (previously called the Cost-Effective Care Clerkship), Lecture, "Understanding Cost Concepts in the Literature"
- Resident Lecture, "Common PACU Problems"
- Medical Student 2nd year Cost Effective Care Clerkship Lecture, "Understanding Cost Concepts in the Literature"
- CRNA Staff Meeting Presentation, "New Medicare Teaching Physician Rules: How They Affect the Anesthesia Care Team"
- Resident and Residency Graduate Weekend Seminar, "Preparing for the Anesthesia Orals"
- Medical Student 2nd year Cost Effective Care Clerkship Lecture, "Understanding Cost Concepts in the Literature"

Duke University Medical Center Educational Lectures, 1996

- Medical Student 2nd year Cost Effective Care Clerkship Lecture, "Understanding Cost Concepts in the Literature"
- Resident and Residency Graduate Weekend Seminar, "Preparing for the Anesthesia Orals"
- Resident Lecture, "Common Problems and Decision Making"
- Departmental Grand Rounds, "Morbidity and Mortality"
- Medical Student 2nd year Cost Effective Care Clerkship Lecture, "Understanding Cost Concepts in the Literature"
- Departmental Grand Rounds, with Dr. JG Reves, Department Chairman, "The New HCFA (Medicare) Guidelines"

- Resident lecture, "New Medicare Teaching Rules—How They Affect You, the Resident." (Short presentation followed by Question & Answer Session on the Introduction of New Departmental Policies)
- Departmental Grand Rounds, "Cost Containment"
- Resident Lecture, "Preoperative Evaluation of the Cardiac Patient for Non-Cardiac Surgery"
- Medical Student 2nd year Cost Effective Care Clerkship Lecture, "Understanding Cost Concepts in the Literature"
- Medical Student 2nd year Cost Effective Care Clerkship Lecture, "Understanding Cost Concepts in the Literature"
- Critical Care Grand Rounds, "Cost Containment in the ICU"

Duke University Medical Center Educational Lectures, 1995

- Medical Student 2nd year Cost Effective Care Clerkship Tutorial Sessions
- Anesthesiology Resident Lecture, "Common Problems in Anesthesia"
- Medical Student 2nd year Cost Effective Care Clerkship Lecture, "Understanding Cost Concepts in the Literature"
- Anesthesiology Resident Lecture, "Common Problems in Anesthesia"
- Grand Rounds in Family Medicine, "Understanding Cost Concepts in the Literature"
- Anesthesiology Resident Lecture, "Board Review"
- Medical Student 2nd year Anesthesiology Rotation Lecture, "Hemodynamic Monitoring"

Duke University Medical Center Educational Lectures, 1994

- Current Topics in Vascular & Thoracic Anesthesia (CME Category I departmental conference), "Prevention of Endotracheal Tube-Induced Coughing During Emergence from General Anesthesia" with Dr. Daryl Malak
- CA-I Resident Orientation Lecture, "Recovery Room Problems (& Transport): Basic Clinical Problem Solving"
- Current Topics in Vascular & Thoracic Anesthesia (CME Category I departmental conference), "Infection Control in Anesthesia" with Dr. Josef Grabmayer
- Anesthesiology Resident Lecture (Vascular & Thoracic Series), "Management Controversies for the Patient at Risk for Myocardial Ischemia Undergoing Non-cardiac Surgery"
- Current Topics in Vascular & Thoracic Anesthesia (CME Category I departmental conference), "Cell Saver: To Use or Not to Use?" with Dr. Nancy Knudsen

National board review courses (Invited lectures given multiple times 1991–1995):

- "How to Take the Oral Board Exam"
- "Carotid Endarterectomy"
- "Oral Exam Answering Strategies"
- "Pre-operative Evaluation—History and Physical Exam"
- "Pre-operative Evaluation—Labs and Tests"
- "Written Questions and Answers"
- "Recovery Room—Differential Diagnoses and Therapies for Common Clinical Problems"
- "Induction Agents for the Boards"
- "Trauma Anesthesia"

SERVICE

Committees and offices:

Florida Society of Anesthesiologists:

FSA Board Member 2003

Ad hoc non-voting Board invitee 2002 – 2003

American Society of Anesthesiologists (ASA)

ASA Delegate for FSA, 2003

Committee on Economics 2003- present

Committee on Information Management 2002-3

Committee on Electronic Media and Information Technology, 2001-2.

Committee on Value Based Anesthesia Care 1995-1999

Task Force on Value-Based Anesthesia 1994 – 1995

*Ad Hoc Committee on Health Outcomes in Anesthesia, chaired by Alex Macario, M.D., M.B.A.
(October, 1997 – present)*

University of Miami-School of Medicine

*Chair, Department of Anesthesiology overseeing 25MM annual budget, 300 employees including
130 interns, residents and fellows, the largest training program in the world.*

Medical Center Internet Group Chief Search 2002-2003

Governing Board 2001-present

Duke University Medical Center and Health System

Duke University Hospital, Perioperative Executive Committee, 2000 - 2002.

*Duke University Health System/Duke University Medical Center Internet Advisory Committee,
2000 – 2002.*

*Managed Care Committee (PDC = Private Diagnostic Clinic = 850 MD partnership) and PDC
representative to Managed Care Coordination Group (Duke University Health System and PDC)
2001-2002.*

Private Diagnostic Clinic Business Strategy Committee, 1999 – 2002.

*Steering Committee, Duke University Health System Revenue Management Initiative, October,
1999 - 2002.*

*Organizer, Duke University Medical MBA's (an internal consulting group for the Duke
University Health System), 1999.*

*Physician Co-Director, Private Diagnostic Clinic (HCFA/CMS) Compliance Committee, March,
1997 - 2002.*

*Administration and Citizenship Work Group, managed by Provider Transition Strategies, LLC,
charged with implementing a physician performance improvement system within the Duke
Health System, 1998 – February, 1999.*

Perioperative Services Advisory Committee, 1997 – 2002.

Faculty of Medical School cost-effective care course, 1995 – 2002.

*Private Diagnostic Clinic Retirement Trust Plan Committee, representing the Departments of
Anesthesiology, Pathology, Radiation Oncology and Radiology, 1995 – 2002.*

Product Standardization Committee, Departmental Representative, May, 1995 – 1996.

Medical Center Cost Effectiveness Committee, January, 1995 – 2002.

Task Force on Teaching Cost Effectiveness, April, 1994 – June, 1995.

Duke Hospital Operations Improvement Steering Committee, 1994 – 1996.

Operating Room Mission Statement Committee, 1994.

Pharmacoeconomics Committee, 1994.

Liaison to Operating Room Clinical Laboratories, 1994 – 2002.
Task Force to Choose Managed Care Partners, 1994.
Duke University Medical Center, Hospital Budget Advisory Committee and Capital Equipment Committee, 1991 – 1994.

Duke Department of Anesthesiology

Chairman, Finance Committee, January, 1991–2002.
Chairman, Equipment, Supplies, and Product Standardization Committee, 1996–2002.
Coordinator, Practice Guidelines Development, 1994–2002.
Coordinator, Drug Utilization Review, 1995–2002.
Director, Outside Hospital Anesthesia Service Contracts, 1996–2002.
Physician Director of Reimbursement Analysts, 1996–2002.
Departmental Compliance Officer
Developer of departmental wide staffing model & incentive plans
Direct supervision of business office and business manager
Chief, Division of General/Vascular/Transplant Anesthesia and Surgical Critical Care Medicine
(12 attendings, 10 CRNAs, 2-4 residents, 2-4 fellows, 8 PA's in preop screening unit) 1998-2002
Coordinator/creator, Current Topics in Vascular and Thoracic Anesthesia, a weekly CME
Category 1 approved conference, July 1991–July 1998.
Director, Departmental Retreat, July 1994, "Upping the Pace of ACE (Anesthesia Cost Effectiveness)".
Resident Education Committee, 1991–1994.
Director, Mock Oral Board Review Course, 1989–2002.

APPENDIX A

ELECTRONIC, WORLD WIDE WEB AND/OR INTERNET PUBLICATIONS:

List of all literature reviews done for AnesthesiaWeb (<http://www.anesthesiaweb.com>)

1. Literature review: Dexter F et al: Decreases in anesthesia-controlled time cannot permit one additional surgical operation to be reliably scheduled during the workday. *Anesth Analg* 81:1263-8, 1995 in AnesthesiaWeb, November, 1996
2. Literature review: Dexter F and Tinker J: Analysis of strategies to decrease postanesthesia care unit costs. *Anesthesiology* 82:94-101, 1995 in AnesthesiaWeb, November, 1996
3. Literature review: Connors AF Jr et al: The effectiveness of right heart catheterization in the initial care of critically ill patients. *JAMA* 276:889-97, 1996 and the accompanying editorial: Should a moratorium be placed on sublingual nifedipine capsules for hypertensive emergencies and pseudoemergencies. *JAMA* 276:1328 in AnesthesiaWeb, December, 1996
4. Literature review: Mangano et al: Review of effect of atenolol on mortality and cardiovascular morbidity after noncardiac surgery. *N Engl J Med* 335:1713, 1996 and accompanying editorial, Eagle and Froelich: Reducing cardiovascular risk in patients undergoing noncardiac surgery. *N Engl J Med* 335(23):1761, 1996 in AnesthesiaWeb, January 1997
5. Literature review: Katz SG and Kohl RD: Selective use of the intensive care unit after nonaortic arterial surgery. *J Vasc Surg* 24:235-9, 1996 in AnesthesiaWeb, February, 1997
6. Literature review: Wright I et al: Statistical modeling to predict elective surgery time. *Anesthesiology* 85:1235-45, 1996 in AnesthesiaWeb, February, 1997
7. Literature review: Twersky R et al: What happens after discharge? Return hospital visits after ambulatory surgery. *Anesth Analg* 1997;84:319-24 in AnesthesiaWeb, March, 1997
8. Literature review: Blum U et al: Endoluminal stent grafts for infrarenal abdominal aortic aneurysms. *N Engl J Med* 1997;336:13-20 in AnesthesiaWeb, March, 1997
9. Literature review: Claxton AR, et al: Evaluation of morphine versus fentanyl for postoperative analgesia after ambulatory surgical procedures. *Anesth Analg* 1997; 84:509-514 in AnesthesiaWeb, April 1997
10. Literature review: Valenzuela RC, Johnstone RE: Cost containment in anesthesiology: a survey of department activities. *J Clin Anesth* 1997; 9:91-92 in AnesthesiaWeb, April 1997
11. Literature review: Rotondi AJ, et al: Benchmarking the perioperative process. I. Patient routing systems: A method of patient flow and resource utilization. *J Clin Anes* 1997; 9:159-169 in AnesthesiaWeb, May 1997

12. Literature review: Woolhandler S, Himmelstein DU: Costs of care and administration at for-profit hospitals and other hospitals in the United States. *N Engl J Med* 1997;336:769-774 in *AnesthesiaWeb*, May 1997
13. Literature review: Frank SM, et al: Perioperative maintenance of normothermia reduces the incidence of morbid cardiac events: a randomized clinical trial. *JAMA* 1997;277:1127-1134 in *AnesthesiaWeb*, June 1997
14. Literature review of a 3-article series: Part 1. Russell LB, et al: The role of cost-effectiveness analysis in health and medicine. *JAMA* 1996; 276:1172-1177
Part 2. Weinstein MC, et al: Recommendations of the Panel on Cost-Effectiveness in Health and Medicine. *JAMA* 1996;276:1253-1258
Part 3. Siegel JE, et al: Recommendations for reporting cost-effectiveness analyses. *JAMA* 1996;276:1339-1341
all reviewed in *AnesthesiaWeb*, July 1997
15. Literature review: Kharasch ED, et al: Assessment of low-flow sevoflurane and isoflurane effects on renal function using sensitive markers of tubular toxicity. *Anesthesiology* 1997; 86:1238-1253 and accompanying editorial, Mazze RI, Jamison RL: Low-flow (1 l/min sevoflurane): is it safe? *Anesthesiology* 1997;86:1225-7 in *AnesthesiaWeb*, August 1997
16. Literature review: Bito H, et al: Effects of low-flow sevoflurane anesthesia on renal function: comparison with high-flow sevoflurane anesthesia and low-flow isoflurane anesthesia. *Anesthesiology* 1997; 86:1231-1237 in *AnesthesiaWeb*, August 1997
17. Literature review: Kearon C, Hirsh J: Management of anticoagulation before and after elective surgery. *N Engl J Med* 1997; 336:1506-1511 in *AnesthesiaWeb*, September 1997
18. Literature review: Rooke GA, et al: Hemodynamic response and change in organ blood volume during spinal anesthesia in elderly men with cardiac disease. *Anesth Analg* 1997;85:99-105 in *AnesthesiaWeb*, September 1997
19. Literature review: Ballantyne JC, Chang Y: The impact of choice of muscle relaxant on postoperative recovery time: A retrospective study. *Anesth Analg* 1997;85:476-82 in *AnesthesiaWeb*, October 1997
20. Literature review: Caldwell JE: The problem with long-acting muscle relaxants? They cost more! *Anesth Analg* 1997;85:473-475 in *AnesthesiaWeb*, October 1997
21. Literature review: Snidach MS, Alberts MS: A comparison of the prophylactic antiemetic effect of ondansetron and droperidol on patients undergoing gynecologic laparoscopy. *Anesth Analg* 1997; 85:797-800 in *AnesthesiaWeb*, December, 1997
22. Literature review: Vogt AW, Henson LC: Unindicated preoperative testing: ASA physical status and financial implications. *J Clin Anes* 1997; 9:437-441 in *AnesthesiaWeb*, December, 1997

23. Literature review: Lee TH, Cooper HL: Translating good advice into better practice. (editorial) JAMA 1997;278:2108-2109 and Stiell IG, et al: Implementation of the Ottawa Knee Rule for the use of radiography in acute knee injuries. JAMA 1997;278:2075-2079 in AnesthesiaWeb, February, 1998
24. Literature review: Pierce ET, et al: Anesthesia type does not influence early graft patency or limb salvage rates of lower extremity arterial bypass. J Vasc Surg 1997;25:226-233 in AnesthesiaWeb, February, 1998
25. Literature review: Olsen MF et al: A randomized controlled trial of prophylactic chest physiotherapy in major abdominal surgery. Br J Surg 1997; 84:1535-1538 in AnesthesiaWeb, April, 1998
26. Literature review: Pollard JB, et al: Use of outpatient preoperative evaluation to decrease length of stay for vascular surgery. Anesth Analg 1997;85:1307-11 in AnesthesiaWeb, April, 1998
27. Literature review: Cher DJ, Lenert LA: Method of Medicare reimbursement and the rate of potentially ineffective care of critically ill patients. JAMA 1997;278:1001-1007 in AnesthesiaWeb, May, 1998
28. Literature review: O'Connor PG, Kosten TR: Rapid and ultrarapid detoxification techniques. JAMA 1998;279:229-234 in AnesthesiaWeb, May, 1998
29. Literature review: Badner NH, et al: Myocardial infarction after noncardiac surgery. Anesthesiology 1998;88:572-578 in AnesthesiaWeb, July, 1998
30. Literature review: Overdyk FJ, et al: Successful strategies for improving operating room efficiency at academic institutions. Anesth Analg 1998;86:896-906 in AnesthesiaWeb, July, 1998
31. Literature review: Leung JM, et al: Automated electrocardiograph ST segment trending monitors: Accuracy in detecting myocardial ischemia. Anesth Analg 1998; 87:4-10 in AnesthesiaWeb, August, 1998
32. Literature review: Swamidoss CP, et al: Health-care report cards and implications for anesthesia. Anesthesiology 1998; 88:809-819 in AnesthesiaWeb, August, 1998
33. Literature review: Fortney JT, et al: A comparison of the efficacy, safety, and patient satisfaction of ondansetron versus droperidol as antiemetics for elective outpatient surgical procedures. Anesth Analg 1998;86:731-8 in AnesthesiaWeb, September, 1998
34. Literature review: Vitez TS and Macario A: Setting performance standards for an anesthesia department. J Clin Anesth 1998;10:166-75 in AnesthesiaWeb, February, 1999
35. Literature review: Fleisher LA and Barash PG: Percutaneous transluminal coronary angioplasty before noncardiac surgery: current state of the debate. (editorial) J Cardiothorac Vasc Anesth 1998;12:499-500 in AnesthesiaWeb, February, 1999

36. Literature review: Bennett-Guerrero E, et al. The use of postoperative morbidity survey to evaluate patients with prolonged hospitalization after routine, moderate-risk, elective surgery. *Anesth Analg* 1999;89:514-519 in *AnesthesiaWeb*, October, 1999
37. Literature review: Posner KL, Freund PR: Trends in quality of anesthesia care associated with changing staffing patterns, productivity, and concurrency of case supervision in a teaching hospital. *Anesthesiology* 1999; 91:839-47 in *AnesthesiaWeb*, January, 2000
38. Literature review: Prielipp RC, et al: Ulnar nerve pressure: influence of arm position and relationship to somatosensory evoked potentials. *Anesthesiology* 1999; 91:345-54 with editorial Caplan RA: Will we ever understand perioperative neuropathy? A fresh approach offers hope and insight. *Anesthesiology* 1999; 91:335-6 in *AnesthesiaWeb*, January 2000
39. Literature review: Ramsey SD, Saint S, Sullivan SD et al: Clinical and economic effects of pulmonary artery catheterization in nonemergent coronary artery bypass graft surgery. *J Cardiothorac Vasc Anesth* 14(2) April 2000 113-118, in *AnesthesiaWeb*, June 2000
40. Literature review: Johnstone RE, Hosaflook C: Financial impact if payers use Medicare rates. *Anesthesiology* 2000; 93:852-7 in *AnesthesiaWeb*, October 2000
41. Literature review: Tobias JD: Fenoldopam: Applications in anesthesiology, perioperative medicine, and critical care medicine. *Am J Anesthesiology* 2000; 27(7):395-401 in *AnesthesiaWeb*, December 2000

APPENDIX B

EDITORIALS ACCOMPANYING ARTICLES:

(Numbers refer to the article listed on Lubarsky's CV)

- 15 & 16. Shapiro BA: Why must the practice of anesthesiology change? It's economics, Doctor! *Anesthesiology* 86:1020-1022, 1997 and
Fisher DM, Macario A: Economics of anesthesia care. A call to arms! *Anesthesiology* 86:1018-1019, 1997
- 20. Miller RD, Rampil L, Cohen N: Fewer residents: financial, educational, and practical implications. *Anesth Analg* 87:242-244, 1998
- 23. Mazzei WJ: Maximizing operating room utilization: a landmark study. *Anesth Analg* 89:1-2, 1999
- 26. Chestnut DH: How do we measure (the cost of) pain relief? *Anesthesiology* 92:643-645, 2000
- 27. Watcha MF: The cost-effective management of postoperative nausea and vomiting. *Anesthesiology* 92:931-3, 2000

Exhibit 2 to Dr. Lubarsky's Affidavit

Post-it® Fax Note 7671		Date 6-19	# of pages 4
To D. Inglis		From R. Bell	
Co./Dept.		Co.	
Phone #		Phone #	
Fax #		Fax #	

CHRONOLOGICAL EXECUTION REPORT

NAME OF INMATE: ROBERT COE 92166

	Time
1. Inmate entered execution room	1:07 AM
2. Restraints in place on inmate	1:09 AM
3. IV systems in place	1:21 AM
4. Lethal injection chemicals injected	1:32 AM
5. Examined by physician	1:36 AM
6. Pronounced dead	1:37 AM
7. Body removed	_____
8. Body removed from institution	_____

4-19-00
Date

Warden

5

Exhibit 3 to Dr. Lubarsky's Affidavit

DAY OF EXECUTION - LETHAL INJECTION EXECUTION RECORDER CHECKLIST

Inmate Name Phillip Workman Inmate # 95920

Date 5/8 & 5/9/07

TIME

Report to designated area for final briefing

11:00 pm Extraction Team and IV Team report to Administrative Lieutenants office. IV Team sets up IV system.

12:00 Physician in place

11:05 IV Team in place (EMTs and Officers)

11:50 Medical Examiner in place

10:45 Team Leader in place

10:50 Check blinds and curtains

12:09 Advise Escort Officer to transport Official Witnesses to Parole Room

12:12 Advised by Escort Officer that Official Witnesses are in Parole Room

1:02 am Advise Escort Officers (2) to escort Victim's Witnesses to Viewing Room

1:23 am Advised by Escort Officers (2) that Victim's Witnesses are in place

1:20 Warden or designee checks to ensure execution is to proceed

1:00 Gurney positioned in Death Watch Area

1:00 Extraction Team enters and secures offender to gurney


12:59 Advise Escort Officer to transport Official Witnesses to Death Watch vestibule

1:01 Advised by Escort Officer that Official Witnesses are in the vestibule

1:08 IV Team enters the Execution Chamber

1:20 IV Team exits the Execution Chamber

1:05 Advise Escort Officer to "Transport Official Witnesses in place"

Recorder's Initial 

DAY OF EXECUTION - LETHAL INJECTION EXECUTION RECORDER CHECKLIST (continued)

Inmate Name Phillip Workman Inmate # 95920

Date 5/8 + 5/9/07

TIME

<u>1:04</u>	Advised by Escort Officer that "Witnesses are in place"
<u>1:20</u>	Warden checks with Command Center to proceed
<u>1:20</u>	Warden orders blinds opened, closed circuit TV activated and audio activated for viewing rooms.
<u>1:21</u>	Warden asks offender for any last comments
<u>1:21</u>	Warden orders Execution Team to proceed
<u>1:31</u>	Lethal Injection process completed
<u>1:36</u>	Blinds and curtains closed and closed circuit TV deactivated
<u>1:37</u>	Physician enters the Execution Chamber
<u>1:38</u>	Physician pronounces death - exact time
<u>1:38</u>	Audio deactivated to witness rooms
<u>1:38</u>	Advise Escort Officers (2) to remove Victims Witnesses
<u>1:39</u>	Advise Commissioner or designee in Command Center that execution is completed
<u>1:50</u>	Physician and EMTs depart
<u>1:40</u>	Medical Examiner escorted to chamber to take possession of body. Pictures will be taken of body and Execution Chamber prior to removal of body
<u>1:42</u>	Advised by Escort Officer (2) Victims Witnesses are at Checkpoint
<u>1:44</u>	Advise Escort Officer to remove Official Witnesses
<u>1:47</u>	Advised by Escort Officer that Official Witnesses are at Checkpoint
<u>1:50</u>	The body removed from the institution

Recorder's Initial 

DAY OF EXECUTION - LETHAL INJECTION EXECUTION RECORDER CHECKLIST (continued)


Inmate Name Phillip Workman Inmate # 95920

Date 5/8+5/9/07

Offender's Comments if any:

I pray to Jesus Christ not to
charge my death to any man.

I bring my spirit to you sir, Jesus
Christ.


Lethal Injection Recorder

5/9/07
Date

Randy L. Bee
Warden

5/9/07
Date

May 9, 2007

Last statement of Phillip Workman:

"I pray to Jesus Christ not to charge my death to any man."

{Pause}

"I bring my spirit to you Sir, Jesus Christ."

LETHAL INJECTION CHEMICAL ADMINISTRATION RECORD

Inmate Name WORKMAN Inmate # _____

Date _____

<u>SET 1 (Red)</u>	Drug	Time Begin
Syringe 1	Sodium Thiopental	<u>1:21 AM</u>
Syringe 2	Sodium Thiopental	<u>1:23 AM</u>
Syringe 3	Sodium Thiopental	<u>1:24 AM</u>
Syringe 4	Sodium Thiopental	<u>1:25 AM</u>
Syringe 5	Saline	<u>1:26 AM</u>
Syringe 6	Pancuronium Bromide	<u>1:27 AM</u>
Syringe 7	Pancuronium Bromide	<u>1:28 AM</u>
Syringe 8	Saline	<u>1:29 AM</u>
Syringe 9	Potassium Chloride	<u>1:29 AM</u>
Syringe 10	Potassium Chloride	<u>1:30 AM</u>
Syringe 11	Saline	<u>1:30 AM</u>

End Time 1:31 AM

Recorder Signature _____

Warden R. E. Bee

RED

CHEMICAL PREPARATION TIME SHEET

Date 5/8/07

5 grams Sodium Thiopental Mixed

Time

4-Syringes prepared by [REDACTED]

at 10:55 pm

Witnessed by [REDACTED]

100 mg Pancuronium Bromide (1mg/ml)

2-Syringes prepared by [REDACTED]

at 11:07 pm

Witnessed by [REDACTED]

100 mL of 2 mEq/mL Potassium Chloride, for a total of 200 mEq

2-Syringes prepared by [REDACTED]

at 11:14 pm

Witnessed by [REDACTED]

Saline

3-Syringes prepared by [REDACTED]

at 11:16 pm

Witnessed by [REDACTED]

CHEMICAL PREPARATION TIME SHEET

Blue

Date 5/8/07

5 grams Sodium Thiopental Mixed

Time

4-Syringes prepared by [REDACTED]

at 11:43 p

Witnessed by [REDACTED]

100 mg Pancuronium Bromide (1mg/ml)

2-Syringes prepared by [REDACTED]

at 11:50p

Witnessed by [REDACTED]

100 mL of 2 mEq/mL Potassium Chloride for a total of 200 mEq

2-Syringes prepared by [REDACTED]

at 11:54p

Witnessed by [REDACTED]

Saline

3-Syringes prepared by [REDACTED]

at 11:56p

Witnessed by [REDACTED]

Exhibit 4 to Dr. Lubarsky's Affidavit

DAY OF EXECUTION - LETHAL INJECTION EXECUTION RECORDER CHECKLIST

Inmate Name Steve Henley Inmate # 109572
Date February 4, 2009

TIME

10:00 Report to designated area for final briefing
10:30 Extraction Team and IV Team report to Administrative Lieutenants office. IV Team sets up IV system.
11:45 Physician in place
11:00 IV Team in place (EMTs and Officers)
11:30 Medical Examiner in place
11:00 Team Leader in place
12:30 Check blinds and curtains
12:45 Advise Escort Officer to transport Official Witnesses to Parole Room
12:46 Advised by Escort Officer that Official Witnesses are in Parole Room
12:30 Advise Escort Officers (2) to escort Victim's Witnesses to Viewing Room
12:31 Advised by Escort Officers (2) that Victim's Witnesses are in place
Warden or designee checks to ensure execution is to proceed.
1:02 Gurney positioned in Death Watch Area
1:03 Extraction Team enters and secures offender to gurney
1:04 Advise Escort Officer to transport Official Witnesses to Death Watch vestibule
1:06 Advised by Escort Officer that Official Witnesses are in the vestibule
1:09 IV Team enters the Execution Chamber
1:16 IV Team exits the Execution Chamber
Advise Escort Officer to "Transport Official Witnesses in place"

Recorder's Initial 

DAY OF EXECUTION - LETHAL INJECTION EXECUTION RECORDER CHECKLIST (continued)

Inmate Name Steve Henley Inmate # 109572

Date February 4, 2009

TIME

_____	Advised by Escort Officer that "Witnesses are in place"
<u>1:17</u>	Warden checks with Command Center to proceed
<u>1:17</u>	Warden orders blinds opened, closed circuit TV activated and audio activated for viewing rooms.
<u>1:17</u>	Warden asks offender for any last comments
<u>1:19</u>	Warden orders Execution Team to proceed
<u>1:26</u>	Lethal Injection process completed
<u>1:31</u>	Blinds and curtains closed and closed circuit TV deactivated
<u>1:32</u>	Physician enters the Execution Chamber
<u>1:33</u>	Physician pronounces death - exact time
<u>1:33</u>	Audio deactivated to witness rooms
<u>1:34</u>	Advise Escort Officers (2) to remove Victims Witnesses
<u>1:34</u>	Advise Commissioner or designee in Command Center that execution is completed
<u>1:50</u>	Physician and EMTs depart
<u>1:34</u>	Medical Examiner escorted to chamber to take possession of body. Pictures will be taken of body and Execution Chamber prior to removal of body
<u>1:34</u>	Advised by Escort Officer (2) Victims Witnesses are at Checkpoint
<u>1:34</u>	Advise Escort Officer to remove Official Witnesses
<u>1:43</u>	Advised by Escort Officer that Official Witnesses are at Checkpoint
<u>1:50</u>	The body removed from the institution


Recorder's Initial 

DAY OF EXECUTION - LETHAL INJECTION EXECUTION RECORDER CHECKLIST (continued)

Inmate Name Steve Herley Inmate # 109572
Date FEBRUARY 4, 2009

Offender's Comments if any:

I'd like to say that I hope this gives Fred + Edna's
family some peace. This never does anybody any good.
I'm sorry for what Fred + Edna went through. All my
love goes out to my children and my family. I am
an innocent man.


Lethal Injection Recorder

2/4/09
Date

Rich & Bill
Warden

2/4/09
Date

LETHAL INJECTION CHEMICAL ADMINISTRATION RECORD

Inmate Name STEVE HENLEY Inmate # 109572

Date 2-4-09

SET 1 (Red)	Drug	Time Begin
Syringe 1	Sodium Thiopental	<u>119 AM</u>
Syringe 2	Sodium Thiopental	<u>120 AM</u>
Syringe 3	Sodium Thiopental	<u>120 AM</u>
Syringe 4	Sodium Thiopental	<u>121 AM</u>
Syringe 5	Saline	<u>122 AM</u>
Syringe 6	Pancuronium Bromide	<u>122 AM</u>
Syringe 7	Pancuronium Bromide	<u>123 AM</u>
Syringe 8	Saline	<u>123 AM</u>
Syringe 9	Potassium Chloride	<u>124 AM</u>
Syringe 10	Potassium Chloride	<u>124 AM</u>
Syringe 11	Saline	<u>125 AM</u>

End Time 125 AM

Recorder Signature _____

Warden Ray L. Bell

CHEMICAL PREPARATION TIME SHEET

RED

Date 2-3-09

5 grams Sodium Thiopental Mixed

Time

4-Syringes prepared by [REDACTED] at 10:02 PM

Witnessed by [REDACTED]

100 mg Pancuronium Bromide (1mg/ml)

2-Syringes prepared by [REDACTED] at 10:30 PM

Witnessed by [REDACTED]

100 mL of 2 mEq/mL Potassium Chloride, for a total of 200 mEq

2-Syringes prepared by [REDACTED] at 10:39 PM

Witnessed by [REDACTED]

Saline

3-Syringes prepared by [REDACTED] at 10:41 PM

Witnessed by [REDACTED]

CHEMICAL PREPARATION TIME SHEET

BLUE

Date 3-3-09

5 grams Sodium Thiopental Mixed

Time

4-Syringes prepared by [REDACTED] at 10:53 PM

Witnessed by [REDACTED]

100 mg Pancuronium Bromide (1mg/ml)

2-Syringes prepared by [REDACTED] at 11:02 PM

Witnessed by [REDACTED]

100 mL of 2 mEq/mL Potassium Chloride, for a total of 200 mEq

2-Syringes prepared by [REDACTED] at 11:14 PM

Witnessed by [REDACTED]

Saline

3-Syringes prepared by [REDACTED] at 11:15 PM

Witnessed by [REDACTED]

Exhibit 5 to Dr. Lubarsky's Affidavit

TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT
 OFFICE OF THE MEDICAL EXAMINER
 84 HERMITAGE AVENUE, NASHVILLE, TN 37210-2110
 (615) 862-8840

State # - *Warden Ball*
 County # 00-0956 *7/26/07*

REPORT OF INVESTIGATION BY COUNTY MEDICAL EXAMINER

IDENT: Robert G Coe RACE: White SEX: Male AGE: 44 Years

HOME ADDRESS: Riverbend Maximum Security 7475 Cockrill Bend Road; Nashville TN MARITAL STATUS: Single

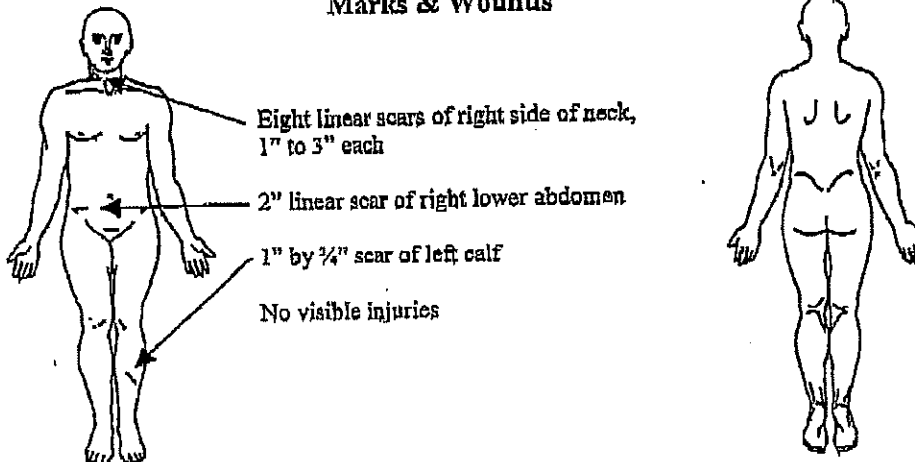
OCCUPATION: Prisoner SS#: DATE OF BIRTH: [REDACTED] 1956

TYPE OF DEATH: Violent () Casualty () Suicide () Suddenly when in apparent health ()
 Found Dead () In Prison () Suspicious, unusual or unnatural () Cremation ()
 Motor Vehicle Accident () Check One Driver () Passenger () Pedestrian () Unknown ()
 COMMENT: Death by lethal injection

AGENCY INVESTIGATOR AND COMPLAINT # MEO

DESCRIPTION OF BODY: Clothed () Unclothed () Partly Clothed () Circumcised? ()
 Eyes: Brown Hair: Gray Mustache: Yes Beard: Yes
 Weight: 179.5 (Lbs.) Length: 69 (In.) Body Temp: Warm to cool
 Rigor? () Lysed? () Livor Color Purple Fixed? ()

Marks & Wounds



Probable Cause of Death	Manner Of Death	Disposition Of Case
Acute intoxication by the combined effects of pentothal, pavulon and potassium	Accident () Homicide () Suicide () Natural () Could Not Be Determined () Pending Investigation () Cremation Approved ()	Medical Examiner Jurisdiction Refused () Autopsy Ordered () Toxicology () Responsible For Death Certificate: Medical Examiner () Bruce P. Levy, M.D. Other MD () Funeral Home: Pettus-Owen-Wood FH

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I hereby declare that after receiving notice of death described herein, I took charge of the body and made inquiries regarding the cause of death in accordance with Section 38-7-101-117 Tennessee Code Annotated and that the information contained herein regarding such death is true and correct to the best of my knowledge and belief.

April 19, 2000
 Date

DAVIDSON
 County of Appointment

13-1

Signature of County Medical Examiner

Exhibit 5 - Lubarsky Affidavit

01

JUL 26 2007 8:56AM

Personal History: Suicide Attempts ☐ Suicide Threats ☐ Hobbies, aptitude and skills with firearms, chemicals, etc. ☐
 Domestic, premarital or marital conflicts ☐ Financial or business reverses ☐ Social or religious conflicts ☐ Legal Difficulties ☐
 Criminal Record ☐ Unemployment ☐ Fear of disease ☐
 Other (Specify):

Conduct Before Death: Efforts to prevent help ☐ Efforts to obtain help ☐ Suicide attempt: Admitted ☐ Denied ☐ Refused to
☐ Written declaration of intended suicide ☐ Accusations against others ☐
 (Specify):

	Last Seen Alive	Injury or Illness	Death	Discovery	Medical Examiner Notified	View of Body	Police Notified
Date		04/19/2000	04/19/2000		04/19/2000	04/19/2000	
Time		01:20	01:37		00:00	01:45:00	

	Location	City or County	Type of Premises (hospital, hotel, highway, etc.)
Injury or onset of illness	Riverbend Maximum Security	Nashville	Prison
Death	Riverbend Maximum Security	Nashville	Prison
Viewing of body by Medical Examiner	Riverbend Maximum Security	Nashville	Prison

MEDICAL ATTENTION AND HOSPITAL, INSTITUTIONAL CARE OR HOME HEALTH CARE

Name of Physician or Institution	Address	Diagnoses	Dates

CIRCUMSTANCES OF DEATH

	Name	Address
Found Dead By		
Last Seen Alive By		
Witness to Injury or Illness	Ricky J. Bell, Warden	Riverbend Maximum Security; 7475 Cockrill Bend Road Nashville TN 37243-
Witness to Death	Dr. Frank Thomas	
Next of Kin	Billie Mayberry (Sister)	Trezevant TN 38258-

(36) NARRATIVE SUMMARY OF CIRCUMSTANCES SURROUNDING DEATH

The decedent is a 44 y.o. W/M who executed by lethal injection on this date. A body examination was performed and documentation made with photography. The body was transported to the Forensic Science Center for further examination by the medical examiner and disposition to the funeral home.

Frances M. Wheatley
 04/19/2000

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EC # 00-0956 DECEDENT: Robert G Coa

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Exhibit 5 - Lubarsky Affidavit

02

TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT
METROPOLITAN NASHVILLE DAVIDSON COUNTY
Office of Medical Examiner
Forensic Sciences Center
84 Hermitage Avenue
Nashville, Tennessee 37210-2110

CASE: MEC00-0956
County: DAVIDSON

AUTOPSY REPORT

NAME OF DECEDENT: COE, ROBERT GLEN RACE: W SEX: M AGE: 44

HOME ADDRESS: River Bend Maximum Security, Nashville TN

DATE AND TIME OF DEATH: April 19, 2000 at 1:37 a.m.

DATE AND TIME OF AUTOPSY: April 19, 2000 at 8:30 a.m.

COUNTY MEDICAL EXAMINER: Bruce P. Levy, M.D.

ADDRESS: 84 Hermitage Avenue, Nashville, TN 37210-2110

DISTRICT ATTORNEY GENERAL: Honorable Victor S. Johnson

ADDRESS: Washington Square, Suite 500, 222 2nd Avenue North,
Nashville, TN 37201-1649.

PATHOLOGIC DIAGNOSES

1. Acute sodium pentothal, Pavulon (pancuronium bromide), and potassium chloride intoxication:
 - a) Pulmonary edema (1840 grams together).
 2. Atherosclerotic cardiovascular disease:
 - a) Coronary artery atherosclerosis, focally marked.
 - b) Aortic atherosclerosis, slight.
 3. Left pleural fibrous adhesions, focal.
 4. Status-post appendectomy, remote.
-

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Exhibit 5 - Lubarsky Affidavit

03

MEC00-0956

COE, ROBERT GLEN

PAGE 2/5

CAUSE OF DEATH:	Acute intoxication by the combined effects of pentothal, Pavulon and potassium.
MANNER OF DEATH:	Homicide.
CIRCUMSTANCES OF DEATH:	Judicial execution.

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Exhibit 5 - Lubarsky Affidavit

04

MEC00-0956

COE, ROBERT GLEN

PAGE 3/5

I hereby certify that I, Bruce P. Levy, M.D. have performed an autopsy on the body of Robert Glen Coe on the 19th day of April, 2000 at 8:30 am in the Forensic Sciences Center of Davidson County. The purpose of this report is to provide a certified opinion to the County Medical Examiner and District Attorney General. The facts and findings to support these conclusions are filed with the Tennessee Department of Health.

EXTERNAL EXAMINATION

The body is that of a well-developed, well-nourished white male, measuring 69 inches and weighing 179-1/2 pounds, whose appearance is consistent with the reported age of 44 years. Hair is gray with male pattern baldness, 1/2 inch in length. There is a mustache and full beard on the face. There is patchy blanching facial congestion. The irides are brown and the pupils are round. The sclerae are anicteric and the conjunctivae are pale without petechial hemorrhages. The ears, nose and mouth are unremarkable. There is blood-tinged liquid in the nasal and oral cavities. A full upper denture plate is in place. A partial lower denture plate is in place and lower natural teeth are in fair repair.

The anterior torso is symmetric with a protuberant soft abdomen. The posterior torso is unremarkable. The upper and lower extremities are symmetric and unremarkable. External genitalia are those of an uncircumcised male with descended testes.

Rigor mortis is moderate and symmetric. Livor mortis is purple in color, posterior in distribution, and blanching. The body is warm to cool to touch.

THERAPEUTIC PROCEDURES: Intravenous catheters are inserted into superficial blood vessels of both antecubital fossae. Attached to the intravenous catheter on the right is intravenous tubing and a bag of 0.9% normal saline. Attached the intravenous catheter on the left is intravenous tubing, a bag of 0.9% normal saline and a 60 cc. syringe containing a label "7." There is an additional dermal puncture of the right antecubital fossa.

SCARS: There are a series of eight linear scars on the right side of the neck, varying between 1 and 3 inch in length each. There is a 1 x 3/4 inch scar on the anterior/lateral aspect of the left calf. There is a 2 inch linear scar in the right lower quadrant of the abdomen. Subsequent examination revealed the absence of the vermiform appendix.

TATTOOS: On the lateral aspect of the right upper arm is a monochromatic tattoo of a peace sign and "Robert Coe." On the lateral aspect of the left upper arm is a monochromatic tattoo of a sword. On the left upper portion of the back is a monochromatic tattoo "kiss off."

INJURIES: None.

INTERNAL EXAMINATION

HEAD: The scalp is unremarkable without abrasions, contusions, or lacerations. The skull is intact without fractures. The meningeal coverings of the brain are intact without epidural, subdural, or subarachnoid hemorrhages.

The 1430 gram brain is symmetric with an unremarkable gyral pattern. The distribution of cranial nerves at the base of the brain is normal. The cerebral vessels are unremarkable and

MEC00-0956

COE, ROBERT GLEN

PAGE 4/5

normally distributed. Coronal sections through the cerebral hemispheres reveal a normal distribution of gray and white matter without focal lesions. The ventricles are of normal configuration and size. Horizontal sections through the cerebellum and brain stem reveal a normal distribution of gray and white matter without focal lesions.

NECK: There are no hemorrhages into the musculature or soft tissues of the neck. The hyoid, larynx, and trachea are intact without obstructions. The base of the tongue is unremarkable. The cervical vertebrae are palpably intact.

BODY CAVITIES: All organs are in their normal anatomic locations. The right pleural, pericardial, and peritoneal cavities are unremarkable. There are focal fibrous adhesions between the left pleura and the lower lobe of the left lung.

CARDIOVASCULAR SYSTEM: The great vessels are normally distributed without thromboemboli. There are slight atherosclerotic deposits of the aorta.

The 390 gram heart has a smooth, glistening, intact epicardial surface. The right-dominant coronary arteries contain slight to focally marked atherosclerotic deposits. There is a maximal 90 percent occlusion of the left main and left anterior descending arteries. The remainder of the coronary arteries contain less than 50 percent occlusion. The myocardium is homogeneous red-brown without focal lesions. The left and right ventricles are 1.1 and 0.2 cm. in thickness at the lateral walls, respectively, and symmetric. The endocardial surfaces and four cardiac valves are unremarkable. The mitral and tricuspid valves measure 10.3 and 11.0 cm. in circumference, respectively.

RESPIRATORY SYSTEM: The right and left lungs weigh 980 and 860 grams, respectively. The pleural surfaces are glistening and intact. The pulmonary arteries are free of thromboemboli. The bronchi contain frothy fluid, otherwise unremarkable. The parenchyma is pink to tan and fluffy with a moderate quantity of expressed frothy fluid. There are no focal lesions or consolidations.

DIGESTIVE SYSTEM AND LIVER: The esophagus is unremarkable with a sharp gastroesophageal junction. The unremarkable stomach contains approximately 400 ml of tan liquids and fragments of partially digested food including identifiable potato. The duodenum, small intestines and large intestines are unremarkable. The vermiform appendix is absent.

The 2340 gram liver has a smooth, intact capsule. The parenchyma is red-brown, congested and soft without focal lesions. The unremarkable gallbladder contains approximately 10 ml. of bile. The extrahepatic bile ducts are patent and unremarkable. The pancreas is unremarkable.

RETICULOENDOTHELIAL SYSTEM: The 190 gram spleen is unremarkable. There is a normal distribution of unremarkable lymph nodes.

GENITOURINARY SYSTEM: The kidneys weigh 180 grams each. The subcapsular surfaces are smooth. The cortices are of normal thickness with sharp corticomedullary junctions. The calices, pelves, and ureters are patent and unremarkable. The unremarkable urinary bladder contains approximately 120 ml of urine.

The testes, prostate gland and seminal vesicles are unremarkable.

ENDOCRINE SYSTEM: The pituitary, thyroid, parathyroid and adrenal glands are

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Exhibit 5 - Lubarsky Affidavit

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MEC00-0956

COE, ROBERT GLEN

PAGE 5/5

unremarkable.

MUSCULOSKELETAL SYSTEM: The musculoskeletal system is intact and unremarkable.

TOXICOLOGY: The following specimens are submitted for possible toxicologic analysis: blood, bile, urine and vitreous humor. A separate report will be issued.

HISTOLOGY: The following specimens are submitted for histologic examination: left anterior descending coronary artery, heart, left bronchus, lungs, liver, spleen, kidney, pituitary gland, thyroid gland, adrenal gland and brain. A separate report will be issued.

SUMMARY OF CASE

This 44 year old male underwent a judicial execution by lethal injection.

At autopsy, there were no visible external or internal injuries. Gross examination revealed moderate pulmonary edema and focally marked atherosclerosis of the coronary arteries. Specimens were obtained for toxicology and histology studies.

Histology confirmed the gross pathologic findings. Blood levels of thiopental (sodium pentothal) and its metabolite pentobarbital are both within normal therapeutic concentrations. Blood levels of pancuronium (Pavulon) are well above the levels indicated for medical use.

In my opinion, this person died as a result of an acute combined intoxication by pentothal, Pavulon and potassium. The manner of death is homicide (judicial execution).

Signature


Bruce E. Levy, M.D.
Chief Medical Examiner

Date

8/10/00

BPL/lss

T: 04/20/00

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Exhibit 5 - Lubarsky Affidavit

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**OFFICE OF THE MEDICAL EXAMINER
FORENSIC MEDICAL**

REPORT OF MICROSCOPICAL EXAMINATION

Name of Deceased: COE, ROBERT GLEN

MEC00-0956

Date of Report: June 5, 2000

Left anterior coronary artery: There are complex atherosclerotic plaques with approximately 90 percent narrowing of the lumen. No thrombotic material is present in the lumen.

Heart: The epicardial surfaces are unremarkable. The myocardium shows slight reversible ischemic changes with hypereosinophilia of the cytoplasm and occasional wavy fiber forms. No significant inflammation or myocardial necrosis is identified. The endocardial surfaces are unremarkable.

Left bronchus: Unremarkable.

Lungs: There is vascular congestion in dependent segments. The pulmonary vasculature is otherwise unremarkable. The bronchi are unremarkable. Alveoli show variably atelectatic and hyper expanded segments with scattered large dilated airspaces. Alveolar walls are thin and delicate without significant inflammation. Alveoli contain numerous macrophages with golden-brown granular cytoplasmic deposits.

Liver: Hepatocytes contain a granular amphophilic cytoplasm with scattered clear cytoplasmic vacuoles and scattered golden-brown granular cytoplasmic deposits. Portal areas are unremarkable. There is slight vascular congestion of the hepatic sinusoids, otherwise unremarkable.

Spleen: Red and white pulp are unremarkable. White pulp follicles contain rare active germinal centers.

Kidney: Glomeruli and tubules are unremarkable. There is vascular congestion.

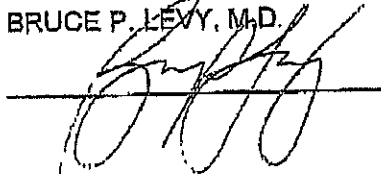
Pituitary gland: Unremarkable.

Thyroid gland: Unremarkable.

Adrenal gland: Unremarkable.

Brain: Sections of the cerebral cortex, hippocampus, cerebellum and brainstem are unremarkable. There are no ischemic, inflammatory or neoplastic changes.

BRUCE P. LEVY, M.D.



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Exhibit 5 - Lubarsky Affidavit

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AEGIS

ANALYTICAL LABORATORIES, INC

345 HILL AVENUE, NASHVILLE, TN 37210

Telephone: (615) 255-2400 ■ Facsimile: (615) 255-3030

David L. Black, Ph.D., DABFT, DABCC
Director of LaboratoriesDATE COLLECTED: 04/19/00 Page 1 of 1
DATE RECEIVED: 04/19/00 11:53
DATE REPORTED: 07/14/00 10:47CLIENT #: 00-0956
AEGIS #: 278285
INSTITUTION: Dr. Bruce Levy
Forensic Medical
84 Hermitage Ave
Nashville, TN 37210

(42197) VITREOUS ELECTROLYTE PANEL

Specimen submitted was analyzed for the seven analytes listed below. Conventional clinical chemistry and/or microelectrode analytical methods were applied in performing these analyses. Specimen will be retained for 366 days after the date of this report.

Glucose
BUN
Sodium
Potassium
Chloride
CO2
Creatinine

PROFILE RESULTS

REASON FOR TEST: Post Mortem

SPECIMEN: Vitreous

TEST RESULTS: POSITIVE

Glucose: 34 mg/dL

Blood Urea Nitrogen (BUN): 10 mg/dL

Sodium (Na): 160 mmol/L

Potassium (K): 9 mmol/L

Chloride (Cl): 92 mmol/L

Carbon Dioxide: Unable to obtain a valid result.

Creatinine: 1.3 mg/dL


David L. Black, Ph.D., DABFT, DABCC
Director of Laboratories

Exhibit 5 - Lubarsky Affidavit

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AEGIS

ANALYTICAL LABORATORIES, INC

345 HILL AVENUE, NASHVILLE, TN 37210

Telephone: (615) 255-2400 ■ Facsimile: (615) 255-3030

David L. Black, Ph.D., DABFT, DABCC
Director of LaboratoriesDATE COLLECTED: 04/19/00 Page 1 of 1
DATE RECEIVED : 04/19/00 11:53
DATE REPORTED : 04/25/00 14:46CLIENT # : 00-0956
AEGIS # : 278282
INSTITUTION : Dr. Bruce Levy
Forensic Medical
84 Hermitage Ave
Nashville, TN 37210

(40569) PROFILE - ME 9

Specimen was analyzed for the following drugs:

DRUG

Acetaminophen
Amphetamines
Barbiturates/Sedative Hypnotics
Benzodiazepines
Cannabinoids (Urine only)
Cocaine

DRUG

Opiates and Synthetic Narcotics
Phencyclidine (PCP)
Phenothiazines
Salicylate
TricyclicsPositive drug results are reported only after confirmation by Gas
Chromatography/Mass Spectrometry (GC/MS) or a Forensically acceptable
alternative method of analysis.

PROFILE RESULTS

REASON FOR TEST: Post Mortem

SPECIMEN: Urine

TEST RESULTS: NO DRUGS DETECTED

David L. Black, Ph.D. 8/25/00
David L. Black, Ph.D., DABFT, DABCC
Director of Laboratories 8/19/00 me

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Exhibit 5 - Lubarsky Affidavit

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AEGIS

ANALYTICAL LABORATORIES, INC

345 HILL AVENUE, NASHVILLE, TN 37210

Telephone: (615) 255-2400 ■ Facsimile: (615) 255-3030

David L. Black, Ph.D., DABFT, DABCC
Director of LaboratoriesDATE COLLECTED : 04/19/00 Page 1 of 4
DATE RECEIVED : 04/19/00 11:53
DATE REPORTED : 06/04/00 16:45CLIENT # : 00-0956
AEGIS # : 278283
INSTITUTION : Dr. Bruce Levy
Forensic Medical
84 Hermitage Ave
Nashville, TN 37210

(00420) GC/MS BARBITURATES (ZT)

Specimen submitted for confirmation was analyzed for Amobarbital, Butalbital, Butabarbital, Pentobarbital, Secobarbital, and Phenobarbital using Gas Chromatography/Mass Spectrometry with a reporting threshold of 100 ng/mL. A positive report is issued after comparison to known standard reference material and matching retention time and fragmentation data. Positive specimens will be retained frozen for 366 days following the date of this report.

PROFILE RESULTS

REASON FOR TEST: Post Mortem

SPECIMEN: Blood

TEST RESULTS: POSITIVE

Pentobarbital: 1090 ng/mL

David L. Black Ph.D.
David L. Black, Ph.D., DABFT, DABCC
Director of Laboratories

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Exhibit 5 - Lubarsky Affidavit

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AEGIS

ANALYTICAL LABORATORIES, INC

345 HILL AVENUE, NASHVILLE, TN 37210

Telephone: (615) 255-2400 ■ Facsimile: (615) 255-3030

David L. Black, Ph.D., DABFT, DABCC
Director of LaboratoriesDATE COLLECTED : 04/19/00 Page 2 of 4
DATE RECEIVED : 04/19/00 11:53
DATE REPORTED : 08/04/00 16:45CLIENT # : 00-0956
AEGIS # : 278283
INSTITUTION : Dr. Bruce Levy
Forensic Medical
84 Hermitage Ave
Nashville, TN 37210

(40250) ETHANOL/VOLATILES

Specimen was analyzed for Ethyl Alcohol, Methyl Alcohol, Isopropyl Alcohol, and Acetone using Gas Chromatography. A positive report is issued after comparison to know standard reference material and matching retention time data. Positive specimens will be retained frozen for 366 days following the date of this report.

PROFILE RESULTS

REASON FOR TEST: Post Mortem

SPECIMEN: Blood

TEST RESULTS: NO DRUGS DETECTED

David L. Black Ph.D. 10/24/07 m
David L. Black, Ph.D., DABFT, DABCC
Director of Laboratories

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Exhibit 5 - Lubarsky Affidavit

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AEGIS

ANALYTICAL LABORATORIES, INC.

345 HILL AVENUE, NASHVILLE, TN 37210

Telephone: (615) 255-2400 ■ Facsimile: (615) 255-3030

David L. Black, Ph.D., DABFT, DABCC
Director of LaboratoriesDATE COLLECTED : 04/19/00 Page 4 of 4
DATE RECEIVED : 04/19/00 11:53
DATE REPORTED : 08/04/00 16:45CLIENT # : 00-0956
AEGIS # : 278283
INSTITUTION : Dr. Bruce Levy
Forensic Medical
84 Hermitage Ave
Nashville, TN 37210

(42090) THIOPENTAL (PENTOTHAL)

Specimen was analyzed for thiopental (Pentothal) by Gas Chromatography/
Mass Spectrometry (GC/MS) techniques. A positive report is issued after
comparison to known standard reference material and matching retention
time and fragmentation data. Positive specimens will be retained frozen
for 366 days following the date of this report.

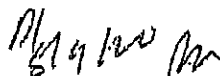
PROFILE RESULTS

REASON FOR TEST: Post Mortem

SPECIMEN: Blood

TEST RESULTS: POSITIVE

Thiopental: 10200 ng/mL


David L. Black, Ph.D., DABFT, DABCC
Director of Laboratories
13-13

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AEGIS

ANALYTICAL LABORATORIES, INC.

345 HILL AVENUE, NASHVILLE, TN 37210

Telephone: (615) 255-2400 ■ Facsimile: (615) 255-3030

David L. Black, Ph.D., DABFT, DABCC
Director of LaboratoriesDATE COLLECTED : 04/19/00 Page 3 of 4
DATE RECEIVED : 04/19/00 11:53
DATE REPORTED : 08/04/00 16:45CLIENT # : 00-0956
AEGIS # : 278283
INSTITUTION : Dr. Bruce Levy
Forensic Medical
64 Hermitage Ave
Nashville, TN 37210

(41787) PANCURONIUM (PAVULON)

Specimen was analyzed for pancuronium (Pavulon) by Gas Chromatography/
Mass Spectrometry (GC/MS) techniques. A positive report is issued after
comparison to known standard reference material and matching retention
time and fragmentation data. Positive specimens will be retained frozen
for 366 days following the date of this report.

PROFILE RESULTS

REASON FOR TEST: Post Mortem

SPECIMEN: Blood

TEST RESULTS: POSITIVE

Pancuronium: 4700 ng/mL


David L. Black, Ph.D., DABFT, DABCC
Director of Laboratories

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Exhibit 5 - Lubarsky Affidavit

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Exhibit 6 to Dr. Lubarsky's Affidavit

**TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT
OFFICE OF THE MEDICAL EXAMINER
850 R.S. Gass Blvd., Nashville TN 37216-2640
(615) 743-1800
REPORT OF INVESTIGATION BY COUNTY MEDICAL EXAMINER**

MEC 07-1561

State Number: 07-19-1041

DECEDENT: Philip Workman
RACE: White **SEX:** Male **AGE:** 56 Years **MARITAL STATUS:**
HOME ADDRESS: 7475 Cockrill Bend Boulevard TDOC ; Nashville , TN

OCCUPATION: Inmate **DATE OF BIRTH:** [REDACTED]/53

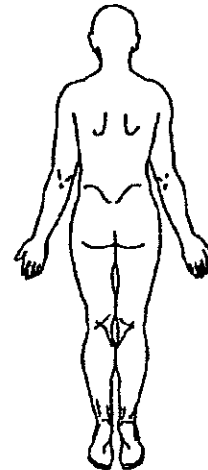
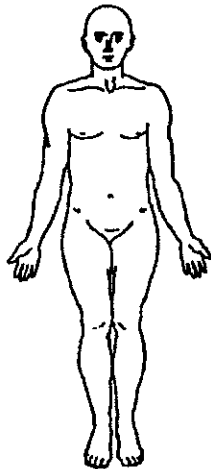
TYPE OF DEATH: ☐ Apparent Natural/Unattended ☐ Motor Vehicle **Cremation:** N
☐ Casualty ☐ Other
☐ Homicide/Suspected Homicide ☐ Suddenly when in apparent health
☒ In Prison ☐ Suicide

COMMENT: Lethal injection.

AGENCY INVESTIGATOR AND COMPLAINT #: TN Dept. of Corrections

DESCRIPTION OF BODY: ☐ Clothed ☐ Unclothed ☐ Partly Clothed **Circumcised?**
Eyes: Hair: Mustache: Beard:
Weight: (Lbs.) **Length:** (In.) **Body Temp:**
Rigor? **Livor Color:** Fixed?

Marks & Wounds



CERTIFIED COPY

I hereby certify that this is a true and correct copy
of the medical examiner's report on file at the
Office of the State Medical Examiner, Nashville TN.

By A. Standley Date 4/16/08

Probable Cause of Death	Manner of Death	Disposition Of Case
Acute intoxication by the combined effects of pentothal, pavalon and potassium	<input type="checkbox"/> Accident <input checked="" type="checkbox"/> Homicide <input type="checkbox"/> Suicide Cremation Approved: N	<input type="checkbox"/> Natural <input type="checkbox"/> Could Not Be Determined <input type="checkbox"/> Pending Investigation Medical Examiner Jurisdiction: Accepte Autopsy Ordered: Autopsy Toxicology: Y Responsible for Death Certificate: <input checked="" type="checkbox"/> Medical Examiner <input type="checkbox"/> Other Physician Funeral Home: Eastland Funeral Home

I hereby declare that after receiving notice of death described herein, I took charge of the body and made inquiries regarding the cause of death in accordance with Section 38-7-101-117 Tennessee Code Annotated and that the information contained herein regarding such death is true and correct to the best of my knowledge and belief.

October 24, 2007
Date

Davidson
County of Appointment

[Signature]
Signature of County Medical Examiner

Exhibit 6 - Lubarsky Affidavit

01

ME Report Form for MEC07-1561 Philip Workman Page 2

	Last Seen Alive	Injury or Illness	Death	Discovery	Medical Examiner Notified	View of Body	Police Notified
Date	05/09/2007	05/09/2007	05/09/2007		05/09/2007		
Time	01:30 AM	01:21 AM	01:38 AM		01:40 AM		

	Location	City or County	Type of Premises (hospital, hotel, highway, etc.)
Injury or onset of illness	7475 Cockrill Bend Boulevard	Nashville, TN	Prison
Death	7475 Cockrill Bend Boulevard	Nashville	Prison
Viewing of body by Medical Examiner			

MEDICAL ATTENTION AND HOSPITAL, INSTITUTIONAL CARE OR HOME HEALTH CARE

Name of Physician or Institution	Address	Diagnoses	Dates
			-

(35) CIRCUMSTANCES OF DEATH

	Name	Address
Found Dead By		
Last Seen Alive By	Warden Ricky Bell	7475 Cockrill Bend Boulevard ; Nashville, TN 37209
Witness to Injury or Illness	Warden Ricky Bell	7475 Cockrill Bend Boulevard ; Nashville, TN 37209
Witness to Death	Dr. Frank Thomas	
Next of Kin	Terry Workman	42211

(36) NARRATIVE SUMMARY OF CIRCUMSTANCES SURROUNDING DEATH

Reportedly this 53 y.o. W/M was an inmate with the Tennessee Department of Corrections who had his death sentence carried out on this date and death was pronounced at the site at 01:38. The body was photographed on the execution table in the execution chamber prior to removal of the body by Correctional Officer's and Middle Tennessee Removal Service personnel Chris Moss. The body was next placed in the transport van and escorted by Tennessee Highway Patrol Officer's to the Center for Forensic Medicine for an examination by the medical examiner. Lance V. Long 05/09/2007

**TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT
OFFICE OF THE STATE MEDICAL EXAMINER
Center for Forensic Medicine
850 R.S. Gass Blvd.
Nashville, Tennessee 37216-2640**

**CASE: MEC07-1561
County: DAVIDSON**

AUTOPSY REPORT

NAME OF DECEDENT: WORKMAN, PHILLIP **RACE:** W **SEX:** M **AGE:** 56

HOME ADDRESS: TDOC, Nashville TN

DATE AND TIME OF DEATH: May 9, 2007 at 1:38 a.m.

DATE AND TIME OF AUTOPSY: May 19, 2007 at 8:00 a.m.

COUNTY MEDICAL EXAMINER: Bruce P. Levy, M.D.

ADDRESS: 850 R.S. Gass Blvd., Nashville, TN 37216-2640

DISTRICT ATTORNEY GENERAL: Honorable Victor S. Johnson

ADDRESS: Washington Square, Suite 500, 222 2nd Avenue North, Nashville, TN 37201

PATHOLOGIC DIAGNOSES

1. Lethal injection:
 - a. Intravenous catheters placed in each antecubital fossa.
 - b. Dermal punctures of both upper extremities.
 - c. Toxicology positive for:
 - 1) Thiopental (18,900 ng/ml heart blood).
 - 2) Pentobarbital (615 ng/ml heart blood).
 - 3) Pancuronium (630 ng/ml heart blood).
 - 4) Potassium (>9 mmol/L vitreous).

CAUSE OF DEATH: Acute intoxication by the combined effects of pentothal, pavulon and potassium

MANNER OF DEATH: Homicide

CIRCUMSTANCES OF DEATH: Judicial execution by lethal injection

I hereby certify that I, Bruce P. Levy, M.D. have performed an autopsy on the body of Philip Workman on the 19th day of May 2007 at 8:00 a.m. in the State of Tennessee Center for Forensic Medicine. The purpose of this report is to provide a certified opinion to the County Medical Examiner and District Attorney General. The facts and findings to support these conclusions are filed with the Tennessee Department of Health.

EXTERNAL EXAMINATION

The body is that of a well-developed, well-nourished white male, measuring 67 inches and weighing 207-1/2 pounds, whose appearance is consistent with the reported age of 53 years. The head hair is brown and gray in color with male pattern baldness, measuring a maximum of approximately 6 inches in length. There is a mustache and goatee on the clean-shaven face. The irides are dark with cloudy corneas. The conjunctivae are congested, left greater than right, without petechiae. The ears are unremarkable. The nasal septum is deviated towards the right. The mouth is unremarkable and does not contain any significant quantity of foreign material. Upper and lower denture plates are in place.

The anterior torso is symmetric with a very slightly protuberant soft abdomen. The posterior torso is unremarkable. There is a 1-3/4 x 1 inch patch of slightly pigmented skin on the left middle portion of the back. The upper extremities are symmetric and unremarkable. The lower extremities are symmetric with very slight superficial varicosities. There is marked peripheral cyanosis. External genitalia are those of a circumcised male with descended testes. There are scattered pigmented moles on the body.

Rigor mortis is full and symmetric. Livor mortis is red purple in color, posterior in distribution, and fixed. The body is cold to touch. There is slight drying artifact of scrotum and focal areas of superficial skin slipping.

THERAPEUTIC PROCEDURES: None.

SCARS: There is a 1/2 inch area of scarring to the right of the umbilicus. There is a 2-1/2 inch linear scar on the left lower portion of the back.

There are two 1/4 inch scars on the anterior aspect of the right upper arm near the right antecubital fossa. There are multiple areas of scarring within the right antecubital fossa that measure between 1/4 inch and 1/2 inch in dimension each. There are scattered small linear scars in the right radial area that measure between 1/4 inch and 1/2 inch in length each. There are scattered small scars on the dorsum of the right hand and posterior forearm.

There is a 3/8 inch linear scar in the left antecubital fossa. There is a 3/8 inch linear scar on the anterior aspect of the left forearm. There is a 1/4 inch linear scar on the thenar eminence of the left hand. There are scattered small scars on the dorsum of the left hand and posterior forearm.

There is a 3/4 x 1/2 inch scar on the anterior aspect of the right knee.

There is a 3/16 inch circular pigmented scar with hyperpigmented rims and a hypopigmented center on the anterior aspect of the left calf.

TATTOOS: None.

INJURIES:

LETHAL INJECTION: Intravenous catheters are inserted into superficial veins through dermal punctures of both antecubital fossae. Two additional dermal punctures are noted within the right antecubital fossa. A single dermal puncture is noted on the anterior aspect of the left forearm near the left antecubital fossa.

OTHER SUPERFICIAL INJURIES: There is a 1/8 inch abrasion on the posterior aspect of the proximal phalanx of the thumb of the right hand. There is a 1/8 x 1/16 inch abrasion of the cuticle of the second finger of the left hand.

The above injuries, having been described, will not be repeated.

INTERNAL EXAMINATION

HEAD: The scalp is unremarkable without abrasions, contusions or lacerations. The skull is intact without fracture. The meningeal coverings of the brain are intact without epidural, subdural or subarachnoid hemorrhages.

The brain is symmetric with an unremarkable gyral pattern over the cerebral hemispheres. There are no visible injuries on the surface of the brain.

NECK: There are no hemorrhages into the musculature or soft tissues of the neck. The hyoid, larynx, and trachea are palpably intact. The cervical vertebrae are palpably intact.

BODY CAVITIES: All organs are in their normal anatomic locations. The pleural, pericardial, and peritoneal cavities have smooth and glistening surfaces. Typical quantities of translucent fluid are present within the body cavities.

CARDIOVASCULAR SYSTEM: The great vessels are normally distributed. There are no palpable clots in the pulmonary arteries. The aorta has no palpable calcifications or abnormal dilations.

The heart has a smooth, glistening, intact epicardial surface. It is not apparently enlarged or dilated. The coronary arteries do not have palpable calcifications.

RESPIRATORY SYSTEM: The right and left lungs are normally lobated. The pleural surfaces are glistening and intact with slight to moderate black anthracotic pigment deposits. The lung parenchyma is well aerated without palpable masses or consolidations. There is vascular congestion in dependent segments.

DIGESTIVE SYSTEM AND LIVER: The esophagus, stomach, duodenum, small intestines, appendix, and large intestines are unremarkable on serosal surfaces without palpable abnormalities.

The liver is normal in size with a slightly firm and irregular capsule. The parenchyma is red-brown in color. The unremarkable gallbladder contains approximately 8 ml. of bile. The extrahepatic bile ducts are unremarkable. The pancreas is unremarkable except for autolysis.

RETICULOENDOTHELIAL SYSTEM: The spleen is normal in size and unremarkable. There

is a normal distribution of unremarkable lymph nodes. The thymus gland is involuted.

GENITOURINARY SYSTEM: The kidneys are normal in size. The subcapsular surfaces are smooth. The unremarkable urinary bladder contains approximately 20 ml. of urine.

ENDOCRINE SYSTEM: The thyroid and adrenal glands are normal in size without palpable masses or nodularity.

MUSCULOSKELETAL SYSTEM: The musculoskeletal system is intact and unremarkable. There are moderately increased quantities of subcutaneous and intra-cavity adipose tissue.

TOXICOLOGY: The following specimens are submitted for possible toxicologic analysis: Blood, bile, urine and vitreous humor. A separate report will be issued.

SUMMARY OF CASE

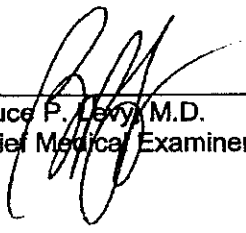
This 53 year old male was executed by lethal injection on May 9, 2007 at 1:21 a.m. and was pronounced deceased at 1:38 a.m. His body was recovered from the execution chamber and an autopsy was ordered.

The body was held in a sealed body bag until an autopsy was performed on May 19, 1007 at 8:00 a.m. By agreement with the next-of-kin autopsy was limited to viewing and palpating the internal organs in-situ. Removal and dissection were only to be performed if abnormal observations required additional inquiry. None were necessary in this case.

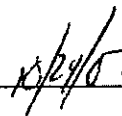
There were no significant unusual findings at autopsy. Toxicology specimens were obtained and tested. Results are attached.

In my opinion, this person died as a result of an acute combined intoxication. The manner of death is homicide.

Signature


Bruce P. Levy, M.D.
Chief Medical Examiner

Date



BPL/lmr
T: 06/29/2007

AEGIS

SCIENCES CORPORATION

345 Hill Avenue Nashville, TN 37210

Ph: (615) 255-2400 Fax: (615) 255-3030 Web: www.aegislabs.com

Client: 225 - Forensic Medical
Report To: Dr. Bruce Levy
Forensic Medical
850 RS Gass Blvd
Nashville, TN 37216

Case ID: 07-1561
Laboratory ID: 4343844
Collected: 05/19/07 00:00
Received: 05/22/07 13:04
Completed: 10/02/07 08:42
Reported: 10/02/07 15:00

Reason: Post-mortem
Specimen Type: Heart Blood

Workman, Phillip

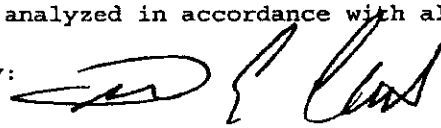
Test(s) Ordered: 40599 - Profile-ME Comprehensive
41787 - Pancuronium (Pavulon)
42090 - Thiopental (Pentothal)
70521 - Confirmation Barbiturates

<u>Drug Class</u>	<u>Result</u>	<u>Quantitation</u>	<u>Reporting Threshold</u>
Pancuronium (Pavulon)	POSITIVE		
Pancuronium	POSITIVE	630 ng/mL	1 ng/mL
Thiopental (Pentothal)	POSITIVE		
Thiopental	POSITIVE	18900 ng/mL	1 ng/mL
Alcohol - Volatiles	NEGATIVE		10 mg/dL
Acetaminophen	NONE DETECTED		
Acetaminophen	NONE DETECTED		1 mcg/mL
Amphetamines	NONE DETECTED		50 ng/mL
Stimulants	NONE DETECTED		50 ng/mL
Barbiturates	POSITIVE		
Amobarbital	NONE DETECTED		50 ng/mL
Butabarbital	NONE DETECTED		50 ng/mL
Butalbital	NONE DETECTED		50 ng/mL
Pentobarbital	POSITIVE	615 ng/mL	50 ng/mL
Secobarbital	NONE DETECTED		50 ng/mL
Talbutal	NONE DETECTED		50 ng/mL
Sedatives/Hypnotics	NONE DETECTED		50 ng/mL
Methadone	NONE DETECTED		50 ng/mL
Benzodiazepines	NONE DETECTED		25 ng/mL
Cannabinoids (Marijuana)	NONE DETECTED		1 ng/mL
Cocaine Metabolite	NONE DETECTED		10 ng/mL

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by:

Date:



TRAVIS E. CURTIS, MS

OCT 02 2007

Page 1 of 2

Exhibit 6 - Lubarsky Affidavit

07

AEGIS

SCIENCES CORPORATION

345 Hill Avenue Nashville, TN 37210

Ph: (615) 255-2400 Fax: (615) 255-3030 Web: www.aegislabs.com

Client: 225 - Forensic Medical
Report To: Dr. Bruce Levy
Forensic Medical
850 RS Gass Blvd
Nashville, TN 37216


Case ID: 07-1561
Laboratory ID: 4343844
Collected: 05/19/07 00:00
Received: 05/22/07 13:04
Completed: 10/02/07 08:42
Reported: 10/02/07 15:00

Reason: Post-mortem
Specimen Type: Heart Blood

Test(s) Ordered: 40599 - Profile-ME Comprehensive
41787 - Pancuronium (Pavulon)
42090 - Thiopental (Pentothal)
70521 - Confirmation Barbiturates

<u>Drug Class</u>	<u>Result</u>	<u>Quantitation</u>	<u>Reporting Threshold</u>
Opiates	NONE DETECTED		50 ng/mL
Synthetic Narcotics	NONE DETECTED		50 ng/mL
Phenothiazines	NONE DETECTED		1 ng/mL
Salicylate	NONE DETECTED		
Salicylate	NONE DETECTED		5 mg/L
Tricyclic Antidepressants	NONE DETECTED		50 ng/mL
Atypical Antidepressants	NONE DETECTED		10 ng/mL
Antipsychotics	NONE DETECTED		2 ng/mL
Miscellaneous	NONE DETECTED		0.25 ng/mL

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by: 
Date:

TRAVIS E. CURTIS, MS

OCT 02 2007

----- END OF REPORT -----

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Exhibit 6 - Lubarsky Affidavit 

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Client: 225 - Forensic Medical
Report To: Dr. Bruce Levy
Forensic Medical
850 RS Gass Blvd
Nashville, TN 37216


Case ID: 07-1561
Laboratory ID: 4343845
Collected: 05/19/07 00:00
Received: 05/22/07 13:04
Completed: 10/02/07 14:53
Reported: 10/02/07 15:00

Reason: Post-mortem
Specimen Type: Urine

Test(s) Ordered: 40569 - Profile-ME Comprehensive Urine
42090 - Thiopental (Pentothal)
41787 - Pancuronium (Pavulon)
70520 - Confirmation Barbiturates
71850 - Confirmation Phenobarbital

<u>Drug Class</u>	<u>Result</u>	<u>Quantitation</u>	<u>Reporting Threshold</u>
Pancuronium (Pavulon)	POSITIVE		
Pancuronium	POSITIVE	300 ng/mL	1 ng/mL
Thiopental (Pentothal)	CANCELED		
Thiopental	CANCELED		1 ng/mL
Alcohol - Volatiles	NEGATIVE		10 mg/dL
Acetaminophen	NONE DETECTED		1 mcg/mL
Amphetamines	NONE DETECTED		100 ng/mL
Barbiturates	POSITIVE		
Butabarbital	NONE DETECTED		100 ng/mL
Butalbital	NONE DETECTED		100 ng/mL
Pentobarbital	POSITIVE	245 ng/mL	100 ng/mL
Secobarbital	NONE DETECTED		100 ng/mL
Talbutal	NONE DETECTED		100 ng/mL
Amobarbital	NONE DETECTED		100 ng/mL
Benzodiazepines	NONE DETECTED		100 ng/mL
Cannabinoids (Marijuana)	NONE DETECTED		5 ng/mL
Cocaine Metabolite	NONE DETECTED		50 ng/mL
Opiates	NONE DETECTED		50 ng/mL
Phencyclidine (PCP)	NONE DETECTED		10 ng/mL
Phenothiazines	NONE DETECTED		5 ng/mL

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by: 
Date:

TRAVIS E. CURTIS, MS

OCT 02 2007

AEGIS

SCIENCES CORPORATION

345 Hill Avenue Nashville, TN 37210
Ph: (615) 255-2400 Fax: (615) 255-3030 Web: www.aegislabs.com

Client: 225 - Forensic Medical
Report To: Dr. Bruce Levy
Forensic Medical
850 RS Gass Blvd
Nashville, TN 37216

Case ID: 07-1561
Laboratory ID: 4343845
Collected: 05/19/07 00:00
Received: 05/22/07 13:04
Completed: 10/02/07 14:53
Reported: 10/02/07 15:00


Reason: Post-mortem
Specimen Type: Urine

Test(s) Ordered: 40569 - Profile-ME Comprehensive Urine
42090 - Thiopental (Pentothal)
41787 - Pancuronium (Pavulon)
70520 - Confirmation Barbiturates
71850 - Confirmation Phenobarbital

<u>Drug Class</u>	<u>Result</u>	<u>Quantitation</u>	<u>Reporting Threshold</u>
Stimulants	NONE DETECTED		50 ng/mL
Tricyclic Antidepressants	NONE DETECTED		50 ng/mL
Synthetic Narcotics	NONE DETECTED		100 ng/mL
Atypical Antidepressants	NONE DETECTED		10 ng/mL
Antipsychotics	NONE DETECTED		2 ng/mL
Miscellaneous	NONE DETECTED		0.25 ng/mL
Salicylate	NONE DETECTED		1 mg/L
Sedatives/Hypnotics	NONE DETECTED		200 ng/mL

The sample quantity submitted is not sufficient to complete required testing.

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by: 
Date:

TRAVIS E. CURTIS MS

OCT 02 2007

----- END OF REPORT -----

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Exhibit 6 - Lubarsky Affidavit

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SCIENCES CORPORATION

345 Hill Avenue Nashville, TN 37210

Ph: (615) 255-2400 Fax: (615)255-3030 Web: www.aegislabs.com

Client: 225 - Forensic Medical
Report To: Dr. Bruce Levy
Forensic Medical
850 RS Gass Blvd
Nashville, TN 37216

Case ID: 07-1561
Laboratory ID: 4343846
Collected: 05/19/07 00:00
Received: 05/22/07 13:04
Completed: 10/02/07 10:00
Reported: 10/02/07 15:00

Reason: Post-mortem
Specimen Type: Bile

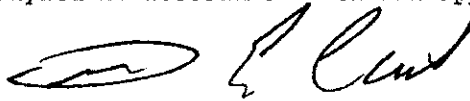
Test(s) Ordered: 42090 - Thiopental (Pentothal)

<u>Drug Class</u>	<u>Result</u>	<u>Quantitation</u>	<u>Reporting Threshold</u>
Thiopental (Pentothal)	POSITIVE		
Thiopental	POSITIVE	4470 ng/mL	1 ng/mL

The sample quantity submitted is not sufficient to complete required testing.

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by:
Date:



TRAVIS E. CURTIS, MS

OCT 02 2007

----- END OF REPORT -----

Page 1 of 1

Exhibit 6 - Lubarsky Affidavit

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SCIENCES CORPORATION

345 Hill Avenue Nashville, TN 37210

Ph: (615) 255-2400 Fax: (615)255-3030 Web: www.aegislabs.com

Client: 225 - Forensic Medical
Report To: Dr. Bruce Levy
Forensic Medical
850 RS Gass Blvd
Nashville, TN 37216

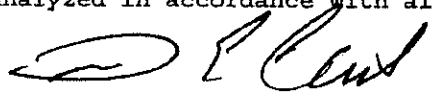
Case ID: 07-1561
Laboratory ID: 4343847
Collected: 05/19/07 00:00
Received: 05/22/07 13:04
Completed: 10/02/07 11:38
Reported: 10/02/07 15:00

Reason: Post-mortem
Specimen Type: Vitreous

Test(s) Ordered: 42197 - Vitreous Electrolyte Profile

<u>Drug Class</u>	<u>Result</u>	<u>Quantitation</u>	<u>Reporting Threshold</u>
Vitreous Electrolyte Profile	POSITIVE		
Glucose	NONE DETECTED		20 mg/dL
Blood Urea Nitrogen(BUN)	POSITIVE	26 mg/dL	1 mg/dL
Sodium(Na)	POSITIVE	116 mmol/L	1 mmol/L
Potassium(K)	POSITIVE	> 9 mmol/L	1 mmol/L
Chloride(Cl)	POSITIVE	115 mmol/L	1 mmol/L
Carbon Dioxide(CO2)	NONE DETECTED		1 mmol/L
Creatinine	POSITIVE	0.8 mg/dL	0.1 mg/dL

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by: 
Date:

TRAVIS E. CURTIS, MS

OCT 02 2007

END OF REPORT

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Exhibit 6 - Lubarsky Affidavit

Exhibit 7 to Dr. Lubarsky's Affidavit



TENNESSEE DEPARTMENT OF HEALTH
OFFICE OF THE CHIEF MEDICAL EXAMINER

REPORT OF INVESTIGATION BY COUNTY MEDICAL EXAMINER

Davidson County Medical Examiner: Bruce Levy M.D.

State Medical Examiner: Bruce Levy M.D.

State Number: 09-19-0295

Judicial District Number: 20

Case Number: MEC09-0201

District Attorney: Honorable Victor S. Johnson III

1. Name of Decedent Steve Morris Henley		2. Age 55 Years	3. Race White	4. Sex Male
5. Address Riverbend Maximum Security Institution, 7475 Cockrill Bend Boulevard, Nashville, TN 37243				
6. Date of Death 02/04/2009 1:33 AM	7. Type of Death In Jail/Prison/In Police Custody		8. Investigating Agency/Complaint #:	
9. Place of Death 7475 Cockrill Bend Boulevard, Nashville, TN				
10. Narrative Summary The decedent is a 55 yr. old w/m that was reportedly a prisoner at the Riverbend Maximum Security Institution. The decedent was given a lethal injection according to the sentencing ordered by the State of Tennessee. Death was pronounced at 01:33 hrs. on 02/04/2009 by Dr. Thomas. Photographs were taken of the decedent inside the execution chamber for documentation purposes. The decedent was transported to the Center for Forensic Medicine for examination by the Medical Examiner. Sherrie L. Saint, Investigator				
11. Jurisdiction Accepted Yes	12. Autopsy Ordered Yes		13. Toxicology Ordered Yes	
14. Physician Responsible for Death Certificate Bruce P Levy, M.D.				
15. Cremation Approved Yes	16. Funeral Home Upper Cumberland Funeral Home			
17. Cause of Death Acute thiopental, pancuronium and potassium toxicity				
18. Contributory Cause of Death				
19. Manner of Death Homicide				

CERTIFIED COPY

I hereby certify that this is a true and correct copy
of the medical examiner's report on file at the
Office of the State Medical Examiner, Nashville TN.

By Vamburen Date 3/10/10

**TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT
OFFICE OF THE STATE MEDICAL EXAMINER
Center for Forensic Medicine
850 R.S. Gass Blvd.
Nashville, Tennessee 37216-2640**

**CASE: MEC09-0201
County: DAVIDSON**

AUTOPSY REPORT

NAME OF DECEDENT: HENLEY, STEVE MORRIS **RACE:** W **SEX:** M **AGE:** 55
HOME ADDRESS: 7475 Cockrill Bend Blvd., Nashville TN
DATE AND TIME OF DEATH: February 4, 2009 at 1:33 a.m.
DATE AND TIME OF AUTOPSY: February 4, 2009 at 9:10 a.m.
FORENSIC PATHOLOGIST: Bruce P. Levy, M.D.
COUNTY MEDICAL EXAMINER: Bruce P. Levy, M.D.
DISTRICT ATTORNEY GENERAL: Honorable Victor S. Johnson, III

PATHOLOGIC DIAGNOSES

1. Lethal injection, clinical history:
 - a. Toxicology positive for thiopental and pancuronium.
 - 1) Blood thiopental level toxic (8310 ng/mL).
 - 2) Blood pancuronium level lethal (1600 ng/mL).
 - 3) Thiopental (1810 ng/mL) and pancuronium (22 ng/mL).
 - 4) Vitreous potassium not elevated (6 mmol/L).
 - b. Pulmonary vascular congestion and edema (1270 grams combined lung weight).
2. Hypertensive cardiovascular disease:
 - a. Cardiac hypertrophy (570 grams).
 - b. Arteriolar nephrosclerosis.
 - c. Aortic atherosclerosis, slight.
 - d. Blood verapamil level therapeutic (70 ng/mL).
3. Urine toxicology positive for carboxy-THC (39 ng/mL):
 - a. Blood toxicology negative for cannabinoids.

(Continued)

4. Cholelithiasis.
5. Benign prostatic hypertrophy.

CAUSE OF DEATH:	Acute thiopental, pancuronium and potassium toxicity
MANNER OF DEATH:	Homicide
CIRCUMSTANCES OF DEATH:	Judicial execution – Lethal injection

I hereby certify that I, Bruce P. Levy, M.D. have performed an autopsy on the body of Steve Morris Henley on the fourth day of February 2009 at 9:10 am in the State of Tennessee Center for Forensic Medicine. The purpose of this report is to provide a certified opinion to the County Medical Examiner and District Attorney General. The facts and findings to support these conclusions are filed with the Tennessee Department of Health. The autopsy was performed in the presence of Dr. McMaster.

EXTERNAL EXAMINATION

The body is that of a well-developed, slightly obese white male, measuring 71 inches and weighing 239-1/2 pounds, whose appearance is consistent with the reported age of 55 years. The head hair is light brown in color, measuring approximately 5 inches long. There is a mustache on the clean-shaven face. The irides are hazel/green in color and the pupils are round. The sclerae are anicteric and the conjunctivae are slightly injected without petechiae. The ears, nose and mouth are unremarkable. A slight quantity of translucent liquid is present in the mouth. Natural teeth are in fair repair with some missing teeth with healed gums.

The anterior torso is symmetric with a protuberant soft abdomen. The posterior torso is unremarkable. The upper and lower extremities are symmetric and unremarkable. External genitalia are those of a circumcised male with descended testes.

Rigor mortis is absent. Livor mortis is purple in color, posterior in distribution, and blanching. The body is warm to touch. There is drying artifact of the scrotum.

THERAPEUTIC PROCEDURES: None.

SCARS: There is a minimum of three linear scars on the dorsum of the left hand that measure between 1/4 inch and 3/4 inch long each. There is a 1/2 x 1/4 inch scar on the anterior aspect of the right forearm.

TATTOOS: None.

INJURIES:

LETHAL INJECTION: Intravenous catheters are inserted into superficial blood vessels of both antecubital fossae. They are attached with intravenous tubing to normal saline intravenous bags. There is an additional dermal puncture of the left antecubital fossa with a surrounding 1/8-inch area of subcutaneous hemorrhage.

The following items are received with the body:

There are a total of 22 syringes. There are four syringes with red colored labels stating, "sodium thiopental," that are all empty. There are two syringes with red colored labels stating, "pancuronium bromide," that are all empty. There are two syringes with red colored labels stating, "potassium chloride," that are all empty. There are three syringes with red colored labels stating, "saline," that are all empty. There are an identical set of 11 syringes with blue colored labels that contain the same indicated items, except each syringe contains 50 mL of a translucent fluid.

There are a total of 67 glass medication bottles. There are 19 bottles labeled "pentothal 500 mg,"

of which 18 are empty and 1 still contains a translucent liquid. There are 10 empty bottles labeled "potassium chloride 40 mEq." There are 20 empty bottles labeled "pancuronium bromide 10 mL." There are 18 empty bottles labeled "sterile water 20 mL."

An additional normal saline intravenous bag is received with the body.

The above injuries, having been described, will not be repeated.

INTERNAL EXAMINATION

HEAD: The scalp is unremarkable without abrasions, contusions or lacerations. The skull is intact without fracture. The meningeal coverings of the brain are intact without epidural, subdural or subarachnoid hemorrhages.

The 1530-gram brain is symmetric with an unremarkable gyral pattern. There are no visible injuries on the surface or cut section of the brain. The distribution of cranial nerves at the base of the brain is normal. The cerebral vessels are unremarkable and normally distributed. Coronal sections through the cerebral hemispheres reveal a normal distribution of gray and white matter without focal lesions. The ventricles are of normal configuration and size. Horizontal sections through the cerebellum and brain stem reveal a normal distribution of gray and white matter without focal lesions.

NECK: There are no hemorrhages into the musculature or soft tissues of the neck. The hyoid, larynx, and trachea are intact without obstructions. The tongue is unremarkable without injury. The cervical vertebrae are palpably intact.

BODY CAVITIES: All organs are in their normal anatomic locations. The pleural, pericardial, and peritoneal cavities have smooth and glistening surfaces. Typical quantities of translucent fluid are present within the body cavities.

CARDIOVASCULAR SYSTEM: The great vessels are normally distributed without thromboemboli. There are slight atherosclerotic deposits of the aorta. The coronary artery ostia are normally placed and free of significant atherosclerotic obstruction.

The 570-gram heart has a smooth, glistening, intact epicardial surface. The right dominant coronary arteries are normally distributed and free of significant atherosclerosis. The myocardium is homogeneous red-brown in color without focal lesions. The left and right ventricles are 1.5 and 0.3 cm. in thickness at the lateral walls, respectively, and symmetric. The endocardial surfaces and four cardiac valves are unremarkable. The papillary muscles and chordae tendineae are normal. The mitral and tricuspid valves measure 11.4 and 12.2 cm. in circumference, respectively.

RESPIRATORY SYSTEM: The right and left lungs weigh 730 and 540 grams, respectively. The lungs are normally lobated. The pleural surfaces are glistening and intact. The pulmonary arteries are free of thromboemboli. The bronchi are unremarkable. The parenchyma is pink/tan in color and well aerated with slight quantities of expressed frothy fluid from both lungs. There are no focal lesions or consolidations. There is vascular congestion in dependent segments.

DIGESTIVE SYSTEM AND LIVER: The esophagus is unremarkable with a sharp gastroesophageal junction. The unremarkable stomach contains approximately 250 mL of well-

chewed and partially digested food. The duodenum, small intestines, appendix, and large intestines are unremarkable.

The 2410-gram liver has a smooth, intact capsule. The parenchyma is slightly pale brown/tan in color and soft without focal lesions. The unremarkable gallbladder contains approximately 2 ml. of bile and three yellow colored multifaceted gallstones that measure a maximum of 1.0 cm in diameter. The extrahepatic bile ducts are patent and unremarkable. The pancreas is unremarkable.

RETICULOENDOTHELIAL SYSTEM: The 360 gram spleen is congested without focal lesions. There is a normal distribution of unremarkable lymph nodes. The thymus gland is involuted.

GENITOURINARY SYSTEM: The right and left kidneys weigh 220 and 230 grams, respectively. The subcapsular surfaces are smooth. The cortices are of normal thickness with sharp corticomedullary junctions. The calices, pelvis, and ureters are patent and unremarkable. The unremarkable urinary bladder contains approximately 50 ml. of urine.

The testes and seminal vesicles are unremarkable. The prostate gland is slightly enlarged with faint diffuse nodularity.

ENDOCRINE SYSTEM: The pituitary, thyroid, parathyroid and adrenal glands are unremarkable.

MUSCULOSKELETAL SYSTEM: The musculoskeletal system is intact and unremarkable. There are slightly increased quantities of subcutaneous and intra-cavity adipose tissue.

TOXICOLOGY: The following specimens are submitted for possible toxicologic analysis: Blood, bile, urine and vitreous humor. A separate report will be issued.

HISTOLOGY: The following specimens are submitted for histologic examination: Hard, bronchus, lungs, liver, kidney and brain. A separate report will be issued.

SUMMARY OF CASE

This 55-year-old male was executed by lethal injection on February 4, 2009. He was pronounced deceased at 0133 hours. An autopsy was ordered.

Autopsy revealed a slightly obese male with an enlarged heart, pulmonary edema and generalized vascular congestion. There is a history of hypertension and he is reportedly prescribed verapamil. Specimens were obtained for toxicology and histology studies.

Histologic examination of the organs confirmed left ventricular hypertrophy (an enlarged heart). There were no other significant pathologic findings.

Toxicology was positive for multiple substances. Testing of femoral blood was positive for toxic levels of both thiopental (8310 ng/mL) and pancuronium (1600 ng/mL). Both of these substances were also detected in urine (thiopental 1810 ng/mL and pancuronium 22 ng/mL). The vitreous potassium level (6 mmol/L) was not elevated, indicating that injected potassium had not diffused into the orbits. Verapamil was detected in the blood at therapeutic levels (70 ng/mL) and urine (250

ng/mL). A metabolite of marijuana (carboxy-THC 39 ng/mL) was unexpectedly detected in the urine. Repeat testing confirmed the presence of the substance in the urine, which also contained the same substances that were known to be in his body at the time of death. Testing of the blood was negative for any cannabinoids. Testing of the bile was attempted, but no results could be obtained due to sample matrix problems.

In my opinion, this person died as a result of a combined toxicity from the three agents used in the lethal injection procedure (thiopental, pancuronium and potassium). The manner of death is homicide.

*****Electronically signed by Bruce P. Levy, M.D. on Wednesday, February 17, 2010*****

Bruce P. Levy, M.D.
Chief Medical Examiner

OFFICE OF THE MEDICAL EXAMINER
FORENSIC MEDICAL

REPORT OF MICROSCOPIC EXAMINATION

Name of Deceased: HENLEY, STEVE MORRIS

MEC09-0201

Date of Report: March 11, 2009

HEART: Sections of both ventricles are examined. There are increased quantities of epicardial fat. The myocardium of the left ventricle is hypertrophied with abundant eosinophilic cytoplasm and enlarged nuclei. There is an increase in interstitial fibrosis, primarily surrounding penetrating arterials. There are no significant ischemic or inflammatory changes. The myocardium of the right ventricle is unremarkable. The endocardial surfaces are unremarkable.

LEFT MAIN BRONCHUS: The mucosal surface consists of respiratory epithelium with focal autolysis. The submucosa and submucosal glands are unremarkable without significant inflammation. The muscle and cartilage are unremarkable.

LUNGS: Sections of both lungs are examined. The overall architecture of the lungs is unremarkable. There is slight to moderate hyperexpansion of distal pulmonary segments. The pleural surfaces are unremarkable. There is vascular congestion of the otherwise unremarkable pulmonary vessels. Bronchi are unremarkable. Alveolar walls are thin, and alveoli are free of significant inflammation. Alveoli contain variable quantities of an amorphous faintly eosinophilic material.

LIVER: The liver capsule is unremarkable. Hepatocytes contain a foamy cytoplasm with rare (less than 1%) clear cytoplasmic vacuoles. There are no significant cellular inclusions or cellular necrosis. Portal areas contain slightly increased numbers of mononuclear inflammatory cells, but are not enlarged and do not have increased fibrosis. There is vascular congestion of the otherwise unremarkable hepatic sinusoids.

KIDNEY: The overall architecture of the kidney is unremarkable. There are rare sclerotic glomeruli. Remaining glomeruli appear unremarkable without significant increased cellularity. Tubules are unremarkable. There is vascular congestion.

BRAIN: Sections of the cerebral cortex, hippocampus, cerebellum and brainstem are examined. The arachnoid membranes are unremarkable without significant hemorrhage or inflammation. There is normal layering of the cerebral cortex without ischemic, inflammatory or neoplastic changes. The overall architecture of the hippocampus is unremarkable, and there is no significant ischemic change. The overall architecture of the cerebellum is unremarkable. Purkinje and granular cell layers are present without significant ischemic change. A section through the midbrain reveals a normal distribution of white matter tracks and deep nuclei without significant ischemic, inflammatory or neoplastic changes. The substantia nigra is appropriately pigmented. The ventricular system is lined by simple epithelium and appears unremarkable.

*****Electronically signed by Bruce P. Levy, M.D. on Wednesday, February 17, 2010*****

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Report To: Dr. Bruce Levy
Forensic Medical
850 RS Gass Blvd
Nashville, TN 37216

Case ID: 09-0201
Laboratory ID: 4391261
Collected: 02/04/09 00:00
Received: 02/05/09 13:46
Completed: 03/14/09 09:12
Reported: 03/14/09 09:36

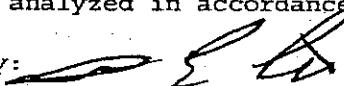
Reason: Post-mortem
Specimen Type: Femoral Blood

Henley, Steve

Test(s) Ordered: 40599 - Profile-ME Comprehensive
70524 - Confirmation Barbiturates
70531 - Confirmation Benzodiazepines
71071 - Confirm Blood Cannabinoids
02195 - Verapamil
42090 - Thiopental (Pentothal)

<u>Drug Class</u>	<u>Result</u>	<u>Quantitation</u>	<u>Reporting Threshold</u>
Thiopental (Pentothal)	POSITIVE		
Thiopental	POSITIVE	8310 ng/mL	1 ng/mL
Alcohol - Volatiles	NEGATIVE		10 mg/dL
Acetaminophen	NONE DETECTED		10 mcg/mL
Amphetamines	NONE DETECTED		50 ng/mL
Stimulants	NONE DETECTED		50 ng/mL
Verapamil	POSITIVE		
Verapamil	POSITIVE	70 ng/mL	50 ng/mL
Barbiturates	NONE DETECTED		200 ng/mL
Meprobamate	NONE DETECTED		1250 ng/mL
Methadone	NONE DETECTED		
Benzodiazepines	NONE DETECTED		25 ng/mL
Cannabinoids (Marijuana)	NONE DETECTED		1 ng/mL
Cocaine Metabolite	NONE DETECTED		10 ng/mL
Opiates	NONE DETECTED		
Meperidine	NONE DETECTED		100 ng/mL
Fentanyl Analogues	NONE DETECTED		
Propoxyphene	NONE DETECTED		100 ng/mL
Fentanyl Group	NONE DETECTED		

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by: 

Date:

TRAVIS E. CURTIS, M.S.

MAR 14 2009

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Nashville, TN 37216

Case ID: 09-0201
Laboratory ID: 4391261
Collected: 02/04/09 00:00
Received: 02/05/09 13:46
Completed: 02/08/10 09:09
Reported: 02/08/10 09:32

Reason: Post-mortem
Specimen Type: Femoral Blood

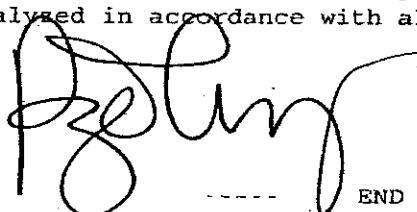
Test(s) Ordered: 40599 - Profile-ME Comprehensive
70524 - Confirmation Barbiturates
70531 - Confirmation Benzodiazepines
71071 - Confirm Blood Cannabinoids
02195 - Verapamil
42090 - Thiopental (Pentothal)

<u>Drug Class</u>	<u>Result</u>	<u>Quantitation</u>	<u>Reporting Threshold</u>
Fentanyl Group	NONE DETECTED		1 ng/mL
Pentazocine	NONE DETECTED		100 ng/mL
Phenothiazines	NONE DETECTED		1 ng/mL
Salicylate	NONE DETECTED		50 mg/L
Tricyclic Antidepressants	NONE DETECTED		50 ng/mL
Atypical Antidepressants	NONE DETECTED		10 ng/mL
Antipsychotics	NONE DETECTED		2 ng/mL
Miscellaneous	NONE DETECTED		0.25 ng/mL

Pancuronium: Analysis by LC/TOFMS - POSITIVE - 1600 ng/mL
Amended Report

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by:
Date:



PAIGE LONG

FEB 10 2010

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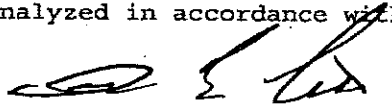
Case ID: 09-0201
Laboratory ID: 4391261
Collected: 02/04/09 00:00
Received: 02/05/09 13:46
Completed: 03/14/09 09:12
Reported: 03/14/09 09:36

Reason: Post-mortem
Specimen Type: Femoral Blood

Test(s) Ordered: 40599 - Profile-ME Comprehensive
70524 - Confirmation Barbiturates
70531 - Confirmation Benzodiazepines
71071 - Confirm Blood Cannabinoids
02195 - Verapamil
42090 - Thiopental (Pentothal)

<u>Drug Class</u>	<u>Result</u>	<u>Quantitation</u>	<u>Reporting Threshold</u>
Pentazocine	NONE DETECTED		100 ng/mL
Phenothiazines	NONE DETECTED		1 ng/mL
Salicylate	NONE DETECTED		50 mg/L
Tricyclic Antidepressants	NONE DETECTED		50 ng/mL
Atypical Antidepressants	NONE DETECTED		10 ng/mL
Antipsychotics	NONE DETECTED		2 ng/mL
Miscellaneous	NONE DETECTED		0.25 ng/mL

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by: 
Date:

TRAVIS E. CURTIS, M.S.

MAR 14 2009

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Forensic Medical
850 RS Gass Blvd
Nashville, TN 37216

Case ID: 09-0201
Laboratory ID: 4391262
Collected: 02/04/09 00:00
Received: 02/05/09 13:48
Completed: 02/05/09 13:48
Reported: 03/14/09 09:36

Reason: Post-mortem
Specimen Type: Heart Blood

Test(s) Ordered: 49999 - Sample Received

Drug Class

Result

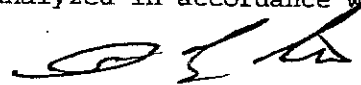
Quantitation

Reporting
Threshold

Testing not requested or indicated.

Testing not requested or indicated.

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by: 
Date:

TRAVIS E. CURTIS, M.S.

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MAR 14 2009

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Case ID: 09-0201
Laboratory ID: 4391263
Collected: 02/04/09 00:00
Received: 02/05/09 13:48
Completed: 03/14/09 09:05
Reported: 03/14/09 09:36

Reason: Post-mortem
Specimen Type: Urine

Test(s) Ordered: 40569 - Profile-ME Comprehensive Urine
70540 - Confirmation Cannabinoids
02195 - Verapamil
42090 - Thiopental (Pentothal)

<u>Drug Class</u>	<u>Result</u>	<u>Quantitation</u>	<u>Reporting Threshold</u>
Thiopental (Pentothal)	POSITIVE		
Thiopental	POSITIVE	1810 ng/mL	1 ng/mL
Alcohol - Volatiles	NEGATIVE		10 mg/dL
Acetaminophen	NONE DETECTED		1 mcg/mL
Amphetamines	NONE DETECTED		100 ng/mL
Barbiturates	NONE DETECTED		200 ng/mL
Verapamil	POSITIVE		
Verapamil	POSITIVE	250 ng/mL	50 ng/mL
Benzodiazepines	NONE DETECTED		100 ng/mL
Cannabinoids (Marijuana)	POSITIVE		
Carboxy-THC	POSITIVE	39 ng/mL	5 ng/mL
Cocaine Metabolite	NONE DETECTED		50 ng/mL
Opiates	NONE DETECTED		
Phencyclidine (PCP)	NONE DETECTED		10 ng/mL
Phenothiazines	NONE DETECTED		5 ng/mL
Stimulants	NONE DETECTED		50 ng/mL
Tricyclic Antidepressants	NONE DETECTED		50 ng/mL
Synthetic Narcotics	NONE DETECTED		100 ng/mL
Atypical Antidepressants	NONE DETECTED		10 ng/mL
Antipsychotics	NONE DETECTED		2 ng/mL
Miscellaneous	NONE DETECTED		0.25 ng/mL

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by:

Date:

TRAVIS E. CURTIS, M.S.

MAR 14 2009

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Nashville, TN 37216

Case ID: 09-0201
Laboratory ID: 4391263
Collected: 02/04/09 00:00
Received: 02/05/09 13:48
Completed: 08/12/09 13:33
Reported: 08/13/09 13:00

Reason: Post-mortem
Specimen Type: Urine

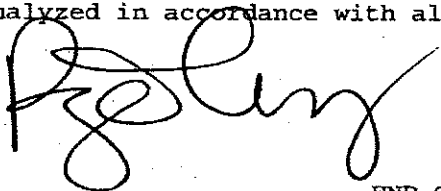
Test(s) Ordered: 40569 - Profile-ME Comprehensive Urine
70540 - Confirmation Cannabinoids
02195 - Verapamil
42090 - Thiopental (Pentothal)

<u>Drug Class</u>	<u>Result</u>	<u>Quantitation</u>	<u>Reporting Threshold</u>
Salicylate	NONE DETECTED		1 mg/L
Sedatives/Hypnotics	NONE DETECTED		1250 ng/mL
Methadone	NONE DETECTED		

Carboxy-THC results verified by repeat analysis.

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by:
Date:



PAIGE LONG

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AUG 20 2009

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Case ID: 09-0201
Laboratory ID: 4391263
Collected: 02/04/09 00:00
Received: 02/05/09 13:48
Completed: 12/15/09 10:56
Reported: 12/15/09 11:03

Reason: Post-mortem
Specimen Type: Urine

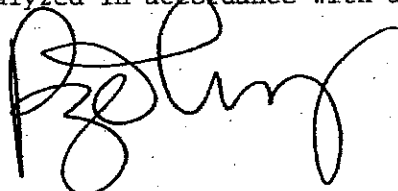
Henley, Steve

Test(s) Ordered: 40569 - Profile-ME Comprehensive Urine
70540 - Confirmation Cannabinoids
02195 - Verapamil
42090 - Thiopental (Pentothal)

<u>Drug Class</u>	<u>Result</u>	<u>Quantitation</u>	<u>Reporting Threshold</u>
Thiopental (Pentothal)	POSITIVE		
Pentobarbital	NONE DETECTED		100 ng/mL
Thiopental	POSITIVE	1810 ng/mL	1 ng/mL
Alcohol - Volatiles	NEGATIVE		10 mg/dL
Acetaminophen	NONE DETECTED		1 mcg/mL
Amphetamines	NONE DETECTED		100 ng/mL
Barbiturates	NONE DETECTED		200 ng/mL
Verapamil	POSITIVE		
Verapamil	POSITIVE	250 ng/mL	50 ng/mL
Benzodiazepines	NONE DETECTED		100 ng/mL
Cannabinoids (Marijuana)	POSITIVE		
Carboxy-THC	POSITIVE	39 ng/mL	5 ng/mL
Cocaine Metabolite	NONE DETECTED		50 ng/mL
Opiates	NONE DETECTED		50 ng/mL
Phencyclidine (PCP)	NONE DETECTED		10 ng/mL
Phenothiazines	NONE DETECTED		5 ng/mL
Stimulants	NONE DETECTED		50 ng/mL
Tricyclic Antidepressants	NONE DETECTED		50 ng/mL
Synthetic Narcotics	NONE DETECTED		100 ng/mL
Atypical Antidepressants	NONE DETECTED		10 ng/mL
Antipsychotics	NONE DETECTED		2 ng/mL

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by:
Date:



PAIGE LONG

DEC 16 2009

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Nashville, TN 37216

Case ID: 09-0201
Laboratory ID: 4391263
Collected: 02/04/09 00:00
Received: 02/05/09 13:48
Completed: 12/15/09 10:56
Reported: 12/15/09 11:03

Reason: Post-mortem
Specimen Type: Urine

Test(s) Ordered: 40569 - Profile-ME Comprehensive Urine
70540 - Confirmation Cannabinoids
02195 - Verapamil
42090 - Thiopental (Pentothal)

<u>Drug Class</u>	<u>Result</u>	<u>Quantitation</u>	<u>Reporting Threshold</u>
Miscellaneous	NONE DETECTED		0.25 ng/mL
Salicylate	NONE DETECTED		1 mg/L
Sedatives/Hypnotics	NONE DETECTED		1250 ng/mL
Methadone	NONE DETECTED		50 ng/mL

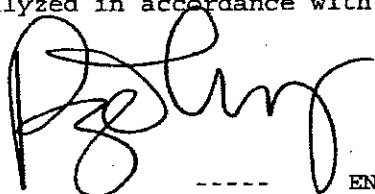
Carboxy-THC results verified by repeat analysis.

Amended Report

Pancuronium: Analysis by LC/TOF - POSITIVE - 22 ng/mL

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by:
Date:



PAIGE LONG

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Report To: Dr. Bruce Levy
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Nashville, TN 37216

Case ID: 09-0201
Laboratory ID: 4391264
Collected: 02/04/09 00:00
Received: 02/05/09 13:48
Completed: 12/15/09 10:59
Reported: 12/15/09 11:03

Reason: Post-mortem
Specimen Type: Bile

Test(s) Ordered: 41071 - Blood Cannabinoids

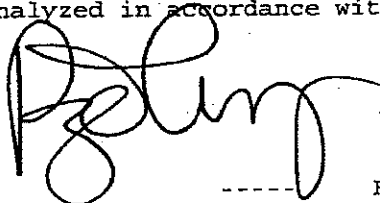
<u>Drug Class</u>	<u>Result</u>	<u>Quantitation</u>	<u>Reporting Threshold</u>
Cannabinoids (Marijuana)	CANCELED		
Carboxy-THC	CANCELED		5 ng/mL
THC	CANCELED		1 ng/mL

Unable to obtain acceptable results for THC confirmation due to sample matrix problems.

Amended Report

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by:
Date:



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Case ID: 09-0201
Laboratory ID: 4391264
Collected: 02/04/09 00:00
Received: 02/05/09 13:48
Completed: 02/05/09 13:49
Reported: 03/14/09 09:36

Reason: Post-mortem
Specimen Type: Bile

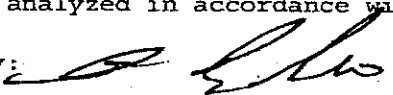
Test(s) Ordered: 49999 - Sample Received

<u>Drug Class</u>	<u>Result</u>	<u>Quantitation</u>	<u>Reporting Threshold</u>
-------------------	---------------	---------------------	----------------------------

Testing not requested or indicated.

Testing not requested or indicated.

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by: 
Date:

TRAVIS E. CURTIS, M.S.

----- END OF REPORT -----

MAR 14 2009

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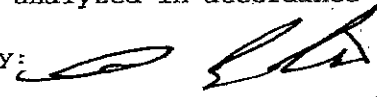
Case ID: 09-0201
Laboratory ID: 4391265
Collected: 02/04/09 00:00
Received: 02/05/09 13:48
Completed: 02/13/09 14:22
Reported: 03/14/09 09:36

Reason: Post-mortem
Specimen Type: Vitreous

Test(s) Ordered: 42197 - Vitreous Electrolyte Profile

<u>Drug Class</u>	<u>Result</u>	<u>Quantitation</u>	<u>Reporting Threshold</u>
Vitreous Electrolyte Profile	POSITIVE		
Glucose	POSITIVE	23 mg/dL	20 mg/dL
Blood Urea Nitrogen (BUN)	POSITIVE	7 mg/dL	1 mg/dL
Sodium (Na)	POSITIVE	146 mmol/L	1 mmol/L
Potassium (K)	POSITIVE	6 mmol/L	1 mmol/L
Chloride (Cl)	POSITIVE	120 mmol/L	1 mmol/L
Carbon Dioxide (CO2)	POSITIVE	13 mmol/L	1 mmol/L
Creatinine	POSITIVE	1.1 mg/dL	0.1 mg/dL

I certify that the specimen identified by this accession number has been handled and analyzed in accordance with all applicable requirements.

Certified by: 
Date:

TRAVIS E. CURTIS, M.S.

MAR 14 2009

END OF REPORT

Page 1 of 1

Exhibit 8 to Dr. Lubarsky's Affidavit

Watching Steve Henley's execution tears at reporter's heart

The Tennessean - Nashville, Tenn.
Author: KATE HOWARD
Date: Feb 8, 2009
Start Page: n/a
Section: OPINION
Text Word Count: 1241

Document Text

Commentary

Editor's note: The Tennessean's Kate Howard, who is the newspaper's public safety reporter, covered the execution of convicted murderer Steve Henley last Wednesday morning. This is her account of covering the imposed sentence. Mark Silverman's column will return.

This morning I watched as lethal drugs flowed into the veins of a man.

Steve Henley was a murderer, or at least that's what the courts decided when they convicted him of shooting an elderly farm couple and burning down the house with their bodies inside. He lived under a death sentence for 23 years.

"I'm an innocent man."

It was the last thing he said before the warden said "Proceed," and sent him to death with just two powerful syllables.

I had spent the earlier hours at a variety of places: at a prayer vigil for Steve, where resistance songs were played and mourners bemoaned state killing at what felt like a funeral six hours premature. I stood in the 18-degree weather with a handful of early protesters, one of whom spent 20 years on death row himself before new technology made him a free man. He was opposed to any type of killing whether Steve was guilty or innocent, he said. I stood in the well-heated press tent with reporters who gave me pitying looks when they learned I was a witness, and the quiet ones who would be going in with me.

I spent an hour, an extremely awkward hour, getting shuffled with Steve's family from one concrete, clockless conference room to another while they counted down the minutes. The warden of Riverbend Maximum Security Institution had brought us into the room himself and let us know right off the bat there were no interviews on these premises. There were six of us intruding on those sacred moments, media witnesses who were told to stay silent.

But we listened while they talked about their father's fast car, the Chevelle that's since been sold that his son would give anything to drive again. His father could shift so fast, Greg Henley said, that he'd tape a \$100 bill to the dashboard and offer it to you - if you could lean forward far enough to get it once he stepped on the gas. They talked about his innocence, how they couldn't believe the state was killing a good, innocent man.

We scribbled as quietly as we could with the provided pencils and notebooks, trying to record the moment as the family bowed their heads, held hands and prayed one last time for Steve.

Son says he forgives the state

His pastor, a staunch anti-death penalty advocate, said she couldn't believe this was really happening after all these years. His son Greg, who said he didn't comprehend reading that well, was repeating over and over the statement he planned to give later to the press, trying to commit it to memory.

"I forgive the state of Tennessee for executing my daddy. I forgive the state of Tennessee for executing my loving daddy. I forgive the state of Tennessee for executing my loving daddy, and I want you to know he is an innocent man."

Later, as we rounded an hour of silence on our side of the room, the press witnesses were confronted with a well-meaning question from Greg.

"Can I ask you a question? Are you guys ... are you pro-death penalty, or anti, I guess?"

Another reporter lifted his head and said the warden told us not to talk to them. Greg apologized.

His sister said that they'd know how we felt once they watched our reports and gave me in particular a knowing nod.

With that, the stony-faced guard at the door nodded to us that it was time. We walked single file through the visiting room - there was a play castle, dolls and children's toys in the corner - to a small concrete room. A row of squeaky

chairs faced a window. The blinds were drawn. Behind it was Steve, or Henley to those of us in the back.

We sat that way for 12 minutes, with the noises of preparation and shadows of prison officials leaking through. The microphone turned on. Greg stopped rocking back and forth. Steve's daughter asked for a bucket.

The blinds were lifted, and Henley was strapped to the gurney. A microphone was coming down from the ceiling for his last statement. He raised his head, turned to see his family, and stuck out his tongue. With his hands strapped down, he tried to blow a kiss. He made his statement. He said he was sorry for what Fred and Edna went through, but he didn't do it. He said he hoped this procedure would give some peace to them and their family, although he didn't believe death brought anything but pain. He said he was an innocent man.

Proceed.

His family began to sob. They stood by the window, shouted to him. He told them to quit crying, called them a pitiful bunch. He told them - perhaps his pastor especially - to never quit.

"I feel it coming," he shouted from the death chamber.

His head was already down, he snored a few times and went silent. In the witness chamber, it was chaos.

They were screaming, sobbing. His daughter began to throw up. His sister and his pastor joined together in the Lord's Prayer, so impassioned that even the pastor stumbled over the words.

I bit my lip and furiously wrote, knowing my notes were never going to match my memory or capture what was happening in that moment. The color drained from his face. He started to turn blue. And slowly it grew quiet in the witness chamber, too.

Don't cry. Don't cry.

I looked at the other reporters. They were still writing.

Soon Henley's sister turned and stared me and the others straight in the face.

"Not a tear in anyone's eye back there," she said to nobody in particular. "Don't human life mean nothing to you? You're like a pack of dogs."

Yesterday, throughout the day most of my colleagues asked me how I felt about covering this execution, watching a man die. I kept saying I wasn't sure yet. A few told me about other reporters they've known who covered them. Some were vague about the impact. Others told me I'd be traumatized.

Before it was time, I had called my boyfriend and asked him, what if I got emotional? What if I cried in front of the other reporters? He told me I would be professional and I would be real. If I cried, then I was being real about it. After all, I was watching a man die.

In truth, it probably was the only time I did successfully hold back tears. I have always been emotional, and always, during a good interview, find myself feeling my subject's emotions. It would be a lie to say I don't often wipe away a tear when interviewing people who have lost someone to murder or illness or ruthless tornadoes.

But on those days I never watched it happen. I have always come along in the aftermath, and felt the hot tears coming when I've heard about grief setting in.

This morning I watched it happen, a true rarity in the world of reporting on crime.

And today, who knows why, the tears held until I got home.

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Abstract (Document Summary)

The Tennessean's Kate Howard, who is the newspaper's public safety reporter, covered the execution of convicted murderer Steve Henley last Wednesday morning. Son says he forgives the state His pastor, a staunch anti-death penalty advocate, said she couldn't believe this was really happening after all these years.

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The City Paper

Published on *Nashville City Paper*: Nashville's Online Source for Daily News (<http://nashvillecitypaper.com>)

Henley executed, maintains innocence in final words

By southcomm
Created 02/19/2009 - 8:53pm

Clint Brewer & Amy Griffith Graydon

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Convicted murderer Steve Henley met his death at the hands of the state with a smile on his face and maintained his innocence even in his final moments amid the cries and prayers of his family.

"As I have said ever since this happened, I didn't kill them," Henley said during his final words of his victims, Fred and Edna Stafford. "I hope they can rest easier after this procedure is done."

Henley was pronounced dead at 1:33 a.m. today in the Riverbend Maximum Security Institute's death chamber. Henley was put to death using Tennessee's controversial three-drug protocol for lethal injection, an execution method Henley's attorneys argued was unconstitutional in last minute briefs to the U.S. Supreme Court as late as yesterday evening just hours before the appointed execution date and time.

Henley was revealed to family members and media witnesses to the execution at 1:17 a.m., already strapped to the death gurney. When he heard the shouts and cries of his family, Henley lifted his head and smiled to them.

In his final words, Henley more than once maintained his innocence in the 1985 murder of the Staffords. Henley also questioned whether his death would bring any peace to the Stafford family, noting his own family's apparent grief.

"I would like to say I hope this gives Fred and Edna's family some peace," Henley said. "In my experience in life, it won't. The death of a family member never brings anything but pain."

"I'm an innocent man," Henley added later.

From the death gurney, Henley also gently admonished his children and sister for their tears.

"Bye," Henley said, making kissing motions with his mouth to his family. "Stop that crying. Stop it. I'll see you on the other side. Ya'll are a pitiful bunch." The final comment drew laughter not only from his family but also from Henley.

In an emotionally charged death chamber with his distraught son, daughter and sister watching, Henley's execution began with the command of "proceed" from Warden Rickey Bell at 1:19 a.m.

"I feel it coming on," Henley said, and then went motionless and made noises as if he were snoring.

The death chamber then exploded in a torrent of emotions from Henley's family. Henley's grown son, Greg Henley, wept openly. His daughter, Leanne Henley, screamed, "Oh my God, no, no," as Henley began to slip away.

At one point, the entire Henley family along with their spiritual advisor Stacey Rector began saying the Lord's Prayer in unison, their voices growing louder and louder in the death chamber as the familiar prayer advanced.

At about 1:26 a.m., Henley's face began to turn blue while still strapped to the gurney. His face eventually turned purple as family members watched.

"They killed my brother for nothing!" explained an angry Stephanie Worley, Henley's sister. Worley eventually turned her anger on members of the press sitting in the death chamber as witnesses.

"I don't see a tear back here," Worley said, as she turned to face reporters. "I guess human life has no meaning anymore. Like a bunch of dogs."

It was unclear from the witness vantage point when during the almost 30 minute process Henley was given the three different drugs – one to act as an anesthetic, another to stop his breathing and a third to stop his heart.

Henley was pronounced dead 14 minutes after the execution began with the command from the warden.

"The state of Tennessee just killed an innocent man," George Henley said in the death chamber after his father had passed. "I forgive them, but two wrongs don't make a right. I hope they know that."

Henley was convicted and executed for the grisly murders in Jackson County of the Staffords in 1985. The couple was shot by Henley in a dispute over money and then placed inside their house, which he then set on fire. Edna Stafford, though shot twice, was still alive and died from injuries suffered in the blaze.

Tennessee Department of Corrections staff said a nephew of the Staffords, Jack Stafford, witnessed the execution from another room.

Henley has maintained his innocence for over two decades, saying it was the man that testified against him who actually committed the murders.

Henley was the fifth person to be executed in Tennessee since 1960 and the fourth by lethal injection. Presently, Tennessee's lethal injection protocol is the subject of a legal battle in the 6th Circuit Court of Appeals where condemned inmate Edward Harbison is trying to see an opinion from district court upheld that states Tennessee's lethal injection method constitutes cruel and unusual punishment.

Greg Henley spoke emotionally to members of the media after the execution. He and his sister, Leanne, stood arm-in-arm, appearing to hold back sobs. Greg Henley's voice broke as he maintained his father's innocence.

"I forgive the state of Tennessee for executing our loving Daddy. I want them to know I'm praying for both our side of the family, and Fred and Edna Stafford's family," Greg Henley said. "But I also want you to know, you executed an innocent man, an innocent man."

Rector said Henley was "at peace." As prospects of legally staying the execution grew bleaker as the day progressed, Rector said Henley accepted the developments and was "ready," though he maintained concerns for his family and for the Staffords' family.

"I very much believe he ministered to me far more than I ministered to him tonight," Rector told reporters. "I think what he hopes most is that story will be told now, even if he's not here, because he very much feels that it should be."

Last-minute appeals on Henley's behalf were denied, said Henley's attorney, Paul Davidson of Waller Lansden Dortch & Davis. A request made to Gov. Phil Bredesen for a 30-day reprieve was also denied. The 30-day reprieve was requested to allow for presentation of a clemency petition.

"Unfortunately, the governor made the decision not to give him that opportunity, and that ended [Henley's] appeals tonight," Davidson said.

Near the prison, more than 60 demonstrators gathered to show their opposition to the death penalty, a turnout that surprised Tennessee Coalition Against State Killings (TCASK) field organizer Isaac Kimes. Temperatures in Nashville hovered around 15 degrees early Wednesday morning, and a light snow fell during parts of the evening. Due to the weather and to the midnight start of the demonstration, Kimes said he was very pleased with the number of people participating.

Volunteers at the event said they wouldn't be anywhere else. Some held signs, or Bibles. While TCASK is a secular organization, Kimes said the anti-death penalty movement draws a number of volunteers who oppose execution on religious grounds.

"I believe that my faith calls me to be here, and to speak out against something I don't believe in. I believe that God is love, and God is forgiveness as well," said demonstrator Menzo Faassen.

"From a religious standpoint, I don't think that anyone has the right to take another person's life, in any form or fashion. The fact that the state of Tennessee, of which I'm a citizen, is pre-meditatively taking another person's life is just incomprehensible to me. I need to be out here to stand against that," said TCASK volunteer Harry Simpson. "Tennesseans are better than this. ... I don't know why more people aren't out here."

For those at the vigil, the presence of Michael McCormick – a Tennessee man who spent 17 years on death row before being acquitted and released in 2007 – served as testimony to a legal system that sometimes makes mistakes.

"I'm here to support Steve. I'm here to support all of [those on death row]. I knew them for 20 years," McCormick said. "The system can fail. People can be executed for crimes they didn't commit. People need to keep that in mind."

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maintains-innocence-final-words

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Exhibit 9 to Dr. Lubarsky's Affidavit

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF TENNESSEE
NASHVILLE DIVISION

EDWARD JEROME HARBISON,)
)
Plaintiff,)
)
v.) No. 3:06-CV-1206
)
GEORGE LITTLE, in his official)
capacity as Tennessee Commissioner)
of Correction, et al.,)
) VOLUME 3
Defendants.)
)
)

BEFORE THE HONORABLE ALETA A. TRAUGER
TRANSCRIPT OF PROCEEDINGS
September 6, 2007

APPEARANCES:

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Official Court Reporter
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Nashville, Tennessee 37203
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1 those things and found nothing that was unexpected in this
2 case.

3 Q. Did you examine the catheters, the IV catheters?

4 A. Yes.

5 Q. When you receive --

6 When your office received Mr. Coe's body, were the IV
7 catheters still in place?

8 A. They were exactly as they were at the moment he was
9 pronounced dead.

10 And we do that with hospital patients, as well. We want
11 to receive them exactly as they were.

12 Q. And you received the syringes, as well?

13 A. Yes.

14 Q. And you found nothing irregular?

15 A. That's correct.

16 Q. Did you draw fluids?

17 A. Yes.

18 Q. Where did you draw the fluids from?

19 A. I drew the fluids from different locations, blood from
20 different locations within the body. We also obtained
21 vitreous, which is the fluid inside the eye.

22 We would have retrieved bile. If there was urine -- I
23 would just need to look at the record to see if there was --
24 we would have obtained that, as well.

25 Q. Is the tox report attached to that autopsy?

1 a random study of 22 surgical patients, plasma thiopental
2 concentrations ranged from 4.2 to 134 milligrams per liter,
3 meaning there were patients who were under anesthesia with
4 levels as low as 4.2.

5 If we then move on to the toxicity section on Page 1098,
6 you notice the first thing is they reported four anesthetic
7 deaths with a blood thiopental concentration ranging from 11
8 to 26 milligrams per liter. They talk about two men who got
9 2 grams of thiopental. And here they had post mortem heart
10 blood concentrations of 17 and 24 milligrams per liter.

11 And the fact that they mention heart is significant
12 because that deals with the issue of post-mortem
13 redistribution, which I'm going to talk about in a moment.

14 The other sentence in here I thought was particularly
15 interesting was after that it says, In self administered
16 overdoses, blood thiopental concentrations as high as 279 and
17 392 milligrams per liter and as low as 6 to 14 milligrams per
18 liter have been reported.

19 So they're reporting fatalities as low as 6 milligrams
20 per liter of thiopental.

21 The last thing they mention in this paragraph is what's
22 called post-mortem redistribution. What that is is a
23 phenomenon where the level of medications in the body can
24 change after death. And post-mortem redistribution addresses
25 an issue where historically medical examiners would obtain

1 blood from the heart or the central parts of the body. But
2 what we found was that levels of certain drugs could be
3 artificially elevated because of reasons having to do with
4 how the central circulation is connected.

5 The exact mechanism of the redistribution isn't always
6 known. But what we've observed in cases where we obtain
7 samples both peripherally -- meaning from a blood vessel, and
8 typically in a leg -- and central blood is that we get
9 different values.

10 And in this case they reported a post-mortem
11 redistribution concentration ratio as high as 1.9; which
12 would mean basically almost doubling the levels in heart
13 blood from what they were actually in the peripheral blood.

14 Q. Is there support for your opinions regarding the Coe
15 autopsy with regard to pancuronium in this text?

16 A. Yes.

17 Q. And where are they located?

18 A. That's located beginning on Page 837 of the text. And
19 without spending a huge amount of time, it basically goes
20 through similar types of sections, talking about how it's
21 typically administered, what blood concentrations have been
22 observed in patients who are being treated, and then what we
23 see in cases of toxicity.

24 They're reporting a fatal case heart blood concentration
25 at 0.7 milligrams per liter.

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF TENNESSEE
NASHVILLE DIVISION

EDWARD JEROME HARBISON,)	
)	
Plaintiff,)	
)	
v.)	No. 3:06-CV-1206
)	
GEORGE LITTLE, in his official)	
capacity as Tennessee Commissioner)	
of Correction, et al.,)	
)	VOLUME 4
Defendants.)	
)	
)	

BEFORE THE HONORABLE ALETA A. TRAUGER
TRANSCRIPT OF PROCEEDINGS
September 7, 2007

APPEARANCES:

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 Official Court Reporter
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 Nashville, Tennessee 37203
 615.330.1764

1 BRUCE LEVY

2 having been previously sworn, was examined and testified
3 further as follows:
4

5 DIRECT EXAMINATION (continued)

6 BY MS. CAMPBELL:

7 Q. Dr. Levy, was the body of Phillip Workman delivered to
8 your office or did your office obtain his body after his
9 execution?

10 A. Yes.

11 Q. And did you visually inspect his body?

12 A. In fact, in Mr. Workman's case I performed a limited
13 form of autopsy.

14 Q. Did that include your visual inspection?

15 A. It did, yes.

16 Q. Did you inspect and make any determination with regard
17 to the IV sites?

18 A. I did. But in Mr. Workman's case it was somewhat
19 limited; in that given the initial court order about not
20 examining his body, it wasn't until I think about 10 days
21 after his execution that we actually examined his body.

22 At that point the blood has -- it's not clotting, but
23 congealed, making the same kind of evaluation that you're
24 able to do within the hours after death not possible.

25 The tubing itself was okay. It was inserted into veins

1 appropriately. But there was no way to evaluate the flow of
2 it at that point.

3 Q. What about the IV catheters?

4 A. The catheters were appropriately placed. Yes.

5 MS. CAMPBELL: Thank you very much.

6 THE COURT: Okay. Cross.

7 MR. KISSINGER: Thank you, Your Honor.

8

9 CROSS EXAMINATION

10 BY MR. KISSINGER:

11 Q. Dr. Levy, it's been almost four months since you
12 collected the fluid samples from Phillip Workman's body; is
13 that correct?

14 A. That is correct. Almost four months.

15 Q. And it's been over a month-and-a-half since we informed
16 you at your deposition of our interest in receiving the
17 Workman toxicology results; isn't that right?

18 A. That's correct.

19 Q. At the time you testified --

20 And at that time you testified that the toxicology
21 results from EGIS Lab and the autopsy report should be done
22 about the end of July, didn't you?

23 A. That was my hope at that point. Yes, sir.

24 MR. KISSINGER: I ask that Dr. Levy be given
25 Plaintiff's Exhibit 11. And it would be the Coe autopsy